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                 12172-85-9/BI OR 12173-47-6/BI OR 12174-06-0/BI OR
                 12244-16-5/BI OR 12417-86-6/BI OR 1318-00-9/BI OR 1318-74-7
                 /BI OR 1318-93-0/BI OR 1319-41-1/BI OR 1592-20-7/BI OR
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                 478697-26-6/BI OR 565450-32-0/BI OR 61745-37-7/BI OR
                 61746-17-6/BI OR 627-18-9/BI OR 639809-48-6/BI OR 639809-49
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                  OR 639809-53-3/BI OR 639809-54-4/BI OR 639809-55-5/BI OR
                 639809-56-6/BI OR 639809-57-7/BI OR 639809-58-8/BI OR
                 639809-59-9/BI OR 639809-60-2/BI OR 639809-61-3/BI OR
                 639809-62-4/BI OR 639809-63-5/BI OR 639809-64-6/BI OR
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                 639809-68-0/BI OR 639809-69-1/BI OR 639809-70-4/BI OR
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                 74-88-4/BI OR 74-96-4/BI OR 9003-49-0/BI OR 9003-53-6/BI
                 OR 998-40-3/BI)
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L9            STR
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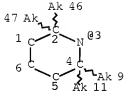

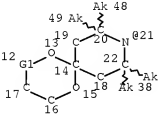

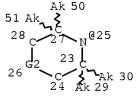

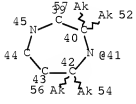

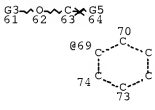


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VAR G3=3/21/25/41/59
VAR G4=65/CB
VAR G5=67/69
VAR G6=O/N
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NSPEC   IS RC     AT  63
CONNECT IS E1  RC AT  65
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  63
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L12           22 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11 AND L2
L13            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
L14          785 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14 AND CLAY?
L20          355 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14(L)POLYMER?
L22          343 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 AND (PLASTIC? OR
                 POLYMER?)/SC,SX
L23          272 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND (1840-2004)/PRY,AY
                 ,PY
L24                STR
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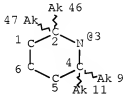

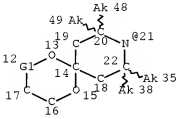

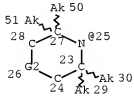

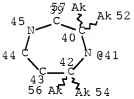

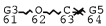

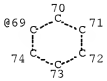

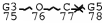


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REP G1=(0-1) CH2
VAR G2=O/N
VAR G3=3/21/25/41
VAR G5=67/69
VAR G6=O/N
NODE ATTRIBUTES:
NSPEC   IS RC     AT  63
NSPEC   IS RC     AT  77
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  63

STEREO ATTRIBUTES: NONE
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L27           82 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26
L28           38 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND L23
L29          234 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 NOT L27
L30              QUE  ABB=ON  PLU=ON  CLAY? OR BENTONIT? OR CERAMIC? OR PH
                 YLLOSILICAT? OR MONTMORILLONIT? OR TONSTEIN? OR KAOLINIT?
                  OR MONTMORILLONITE SMECTIT? OR ILLIT? OR CHLORIT?
L31            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 AND L30
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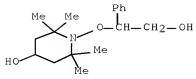
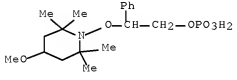
L32	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L14 AND L30
L33	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 OR (L31 OR L32)
L34	2	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L29 AND POLYMER?(3A)(MATRIX? OR MATRIC?)
L35	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L14 AND POLYMER?(3A)(MATRIX? OR MATRIC?)
L36	7	SEA FILE=HCAPLUS ABB=ON	PLU=ON	(L33 OR L34 OR L35)
L37	12	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L13 OR L36
L38	35	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L28 NOT L37
L39	0	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L38 AND POLYMER?(3A)(MATRIX? OR MATRIC?)
L40	35	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L38 OR L39
L41	47	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L37 OR L40

=> d 141 1-47 ibib ed abs hitstr hitind

L41 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1326104 HCAPLUS Full-text
DOCUMENT NUMBER: 148:101046
TITLE: Precise surface structure control of inorganic solid and metal oxide nanoparticles through surface-initiated radical polymerization
AUTHOR(S): Kobayashi, Motoyasu; Matsuno, Ryosuke; Otsuka, Hideyuki; Takahara, Atsushi
CORPORATE SOURCE: Institute for Materials Chemistry and Engineering, Graduate School of Engineering, Kyushu University, Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan
SOURCE: Science and Technology of Advanced Materials (2006), 7(7), 617-628
CODEN: STAMCV; ISSN: 1468-6996
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 19 Dec 2006
AB Surface-initiated radical polymerization was carried out to modify the surface of inorg. solid and metal oxide nanoparticles. Novel (inorg. nanoparticles/polymer) nanocomposites were prepared through a direct polymer grafting reaction from the surfaces of magnetite (Fe3O4) (d=10 and 25 nm) and titanium oxide (TiO2) (d=15 nm) nanoparticles. The initiator for nitroxide-mediated radical polymerization with a phosphoric acid group was chemisorbed onto the nanoparticles and gave controlled polystyrene (PS) and poly(3-vinylpyridine) (P3VP) graft layers on their surfaces. The PS- and P3VP-modified nanoparticles were finely dispersed in organic solvents, whereas protonated P3VP-modified magnetite nanoparticles were dispersed in aqueous phase. The fine dispersion of nanoparticles in the polymer matrix was confirmed by microscopic observation. In order to realize tribol. control, atom transfer radical polymerization of (2,2-dimethyl-1,3-dioxolan-4-yl)methyl methacrylate was also carried out from an immobilized initiator on a flat silicon wafer, resulting in a high-d. polymer brush that was subsequently converted to a hydrophilic polymer brush consisting of 2,3-dihyroxypropyl methacrylate units. The poly(2,3-dihydroxypropyl methacrylate) brush-immobilized surface showed a low dynamic friction coefficient in water due to the highly stable hydrophilicity.
IT 183959-05-9
(surface modification of inorg. solid and metal oxide nanoparticles through surface-initiated radical polymerization)
RN 183959-05-9 HCAPLUS
CN 4-Piperidinol, 1-(2-hydroxy-1-phenylethoxy)-2,2,6,6-tetramethyl- (CA INDEX NAME)



IT 491588-88-6
(surface modification of inorg. solid and metal oxide nanoparticles through surface-initiated radical polymerization)
RN 491588-88-6 HCAPLUS
CN Benzeneethanol, β-[(4-methoxy-2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-(dihydrogen phosphate) (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
IT 7787-70-4, Cuprous bromide 183959-05-9
(surface modification of inorg. solid and metal oxide nanoparticles through surface-initiated radical polymerization)
IT 491588-88-6
(surface modification of inorg. solid and metal oxide nanoparticles through surface-initiated radical polymerization)
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

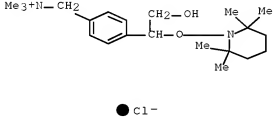
L41 ANSWER 2 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:632708 HCAPLUS Full-text
DOCUMENT NUMBER: 145:231158
TITLE: Exfoliated Block Copolymer/Silicate Nanocomposites by One-Pot, One-Step in-Situ Living Polymerization from Silicate-Anchored Multifunctional Initiator
AUTHOR(S): Di, Jianbo; Sogah, Dotsevi Y.
CORPORATE SOURCE: Baker Laboratory, Department of Chemistry and Chemical Biology, Cornell University, Ithaca, NY, 14853-1301, USA
SOURCE: Macromolecules (2006), 39(15), 5052-5057
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Jun 2006
AB Poly(styrene-b-caprolactone)/silicate nanocomposites were prepared via one-pot, one-step in-situ living polymerization from a silicate-anchored bifunctional initiator. The random dispersion of the silicate layers in the polymer matrix was confirmed by both XRD and STEM. The polymer chains were

attached to the surface of the silicate layers at the junction between the two blocks. SEC and NMR confirmed the block structure of the polymer. Through simultaneous incorporation of the initiator and benzyltrimethylammonium salt as a noninitiator into the silicate nanocomposites containing higher mol. weight polymers were obtained. The mol. wts. of the polymers and the silicate content of the nanocomposites were also controlled. Characterization by XRD and DSC showed that the poly(caprolactone) segment existed in a crystalline state.

IT 887369-62-2P
(ATRP initiator, clay anchored; preparation of multifunctional initiator for living polymerization to prepare exfoliated block copolymer/silicate nanocomposites)

RN 887369-62-2 HCAPLUS

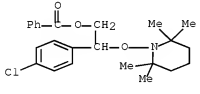
CN Benzenemethanaminium, 4-[2-hydroxy-1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)



IT 196930-68-4
(preparation of multifunctional initiator for living polymerization to prepare exfoliated block copolymer/silicate nanocomposites)

RN 196930-68-4 HCAPLUS

CN Benzeneethanol, 4-chloro-β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35

IT 887369-62-2P
(ATRP initiator, clay anchored; preparation of multifunctional initiator for living polymerization to prepare exfoliated block copolymer/silicate nanocomposites)

IT 1318-93-0DP, Montmorillonite, sodium-exchanged, intercalation product with ε-Caprolactone-styrene diblock copolymer 725712-80-1DP, ε-Caprolactone-styrene diblock

copolymer, intercalation product with sodium-exchanged montmorillonite
(exfoliated block copolymer/silicate nanocomposites by one-pot, one-step in-situ living polymerization from silicate-anchored multifunctional initiator)
IT 75-50-3, Trimethylamine, reactions 196930-68-4
(preparation of multifunctional initiator for living polymerization to prepare
exfoliated block copolymer/silicate nanocomposites)
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:168082 HCAPLUS Full-text
DOCUMENT NUMBER: 144:239249
TITLE: Stabilized body care products, household products, textiles and fabrics
INVENTOR(S): Lupia, Joseph A.; Suhadolnik, Joseph; Wood, Mervin G.; Martin, Wanda H.
PATENT ASSIGNEE(S): Switz.
SOURCE: U.S. Pat. Appl. Publ., 34 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060040836	A1	20060223	US 2005-201377	20050810
WO 2006021526	A1	20060302	WO 2005-EP53990	20050815
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1781246	A1	20070509	EP 2005-775912	20050815
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101043871	A	20070926	CN 2005-80036232	20050815
JP 2008510769	T	20080410	JP 2007-528827	20050815
MX 2007002105	A	20070330	MX 2007-2105	20070221
KR 2007046130	A	20070502	KR 2007-704163	20070222
IN 2007CN00758	A	20070824	IN 2007-CN758	20070222
PRIORITY APPLN. INFO.:			US 2004-603590P P	20040823
			WO 2005-EP53990 W	20050815

OTHER SOURCE(S): MARPAT 144:239249
ED Entered STN: 23 Feb 2006
AB Disclosed are stabilized body care products, household products, textiles and fabrics which comprise certain sterically hindered amine salt compds. Dyed

products and articles are effectively stabilized against color degradation The products are for example skin-care products, hair-care products, dentifrices, cosmetics, laundry detergents and fabric softeners, non-detergent based fabric care products, household cleaners and textile-care products. A shampoo contained an oxypiperidine stabilizer derivative at 0.30%.

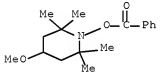
IT 876610-19-4
(stabilized body care products household products and textiles and fabrics)

RN 876610-19-4 HCAPLUS

CN Benzoic acid, 4-methoxy-2,2,6,6-tetramethyl-1-piperidinyl ester, acetate (1:1) (CA INDEX NAME)

CM 1

CRN 876610-18-3
CMF C17 H25 N O3



CM 2

CRN 64-19-7
CMF C2 H4 O2

INCL 510130000; 510392000

CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 40

IT Air fresheners
Antibacterial agents
Antioxidants
Bath preparations
Ceramics
Cosmetics
Fabric softeners
Fluorescent brighteners
Furniture
Hair preparations
Leather
Mouthwashes
Odor and Odorous substances
Perfumes
Photoprotectants
Shampoos

Skin
Stabilizing agents
Sunscreens
Surfactants
Textiles
(stabilized body care products household products and textiles and fabrics)

IT 58-95-7, Tocopherol acetate 65-85-0D, Benzoic acid, derivs. 119-61-9D, Benzophenone, derivs. 273-02-9D, 2H-Benzotriazole, derivs. 290-87-9D, s-Triazine, derivs. 621-82-9D, Cinnamic acid, derivs. 15802-18-3D, α-Cyanoacrylic acid, derivs. 37204-63-0D, Benzoxazinone, derivs. 92484-48-5 866180-86-1 866180-87-2 866180-94-1 866180-95-2 866181-03-5 866181-06-8 866181-07-9 866181-08-0 866181-09-1 866181-10-4 866181-11-5 866181-12-6 866181-13-7 866181-15-9 866181-16-0 866181-17-1 866181-18-2 866181-19-3 866181-23-9 866181-24-0 866181-25-1 876610-13-8 876610-14-9 876610-15-0 876610-16-1 876610-17-2 876610-19-4 876610-20-7 876610-21-8 876610-24-1 876610-26-3 876610-28-5
(stabilized body care products household products and textiles and fabrics)

L41 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1311691 HCAPLUS Full-text
DOCUMENT NUMBER: 144:52058
TITLE: Alkoxyamines containing a radically polymerizable group
INVENTOR(S): Nesvadba, Peter; Kramer, Andreas; Bugnon, Lucienne
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005118651	A1	20051215	WO 2005-EP52260 <--	20050517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1749032	A1	20070207	EP 2005-742775 <--	20050517
EP 1749032	B1	20080227		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1957001	A	20070502	CN 2005-80016626 <--	20050517
JP 2008500307	T	20080110	JP 2007-513909	20050517

			<--			
AT 387464	T	20080315	AT 2005-742775			20050517
			<--			
US 20070232768	A1	20071004	US 2006-596436			20061114
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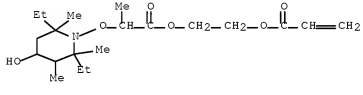
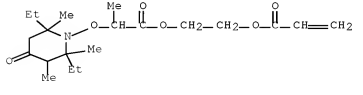
KR 2007024655	A	20070302	KR 2006-727402			20061227
			<--			
PRIORITY APPLN. INFO.:			EP 2004-102337		A	20040527
			<--			
			WO 2005-EP52260		W	20050517

OTHER SOURCE(S): MARPAT 144:52058
ED Entered STN: 16 Dec 2005
AB The instant invention relates to alkoxyamine initiators/regulators containing an ethylenically unsatd., radically polymerizable group. The compds. are useful for the preparation of complex polymeric architectures. Further aspects of the invention are a polymerizable composition and a polymerization process comprising the alkoxyamine initiators/regulators, a macroinitiator obtainable by the polymerization process and a process for polymerizing with the macroinitiator.
IT 871205-74-2P 871205-75-3P 871205-76-4P
871205-77-5P 871205-78-6P 871205-79-7P
871205-81-1P 871205-82-2P 871205-83-3P
871205-84-4P 871205-85-5P 871205-86-6P
871205-88-8P 871205-89-9P 871205-91-3P
871205-92-4P
(alkoxyamines containing a radically polymerizable group)
RN 871205-74-2 HCAPLUS
CN 2-Propenoic acid, 2-[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]ethyl ester (CA INDEX NAME)

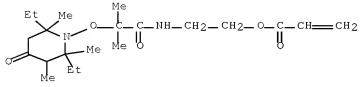


RN 871205-75-3 HCAPLUS
CN 2-Propenoic acid, 2-[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]ethyl ester (CA INDEX NAME)



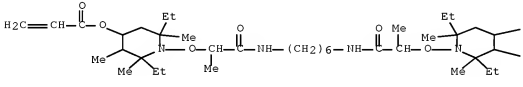
RN 871205-76-4 HCAPLUS
CN 2-Propenoic acid, 2-[[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-

piperidinyl)oxy]-2-methyl-1-oxopropyl]amino]ethyl ester (CA INDEX NAME)

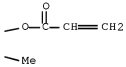


RN 871205-77-5 HCAPLUS
CN 2-Propenoic acid, 1-[2-[[6-[[2-[[2,6-diethyl-2,3,6-trimethyl-4-[(1-oxo-2-propen-1-yl)oxy]-1-piperidinyl]oxy]-1-oxopropyl]amino]hexyl]amino]-1-methyl-2-oxoethoxy]-2,6-diethyl-2,3,6-trimethyl-4-piperidinyl ester (CA INDEX NAME)

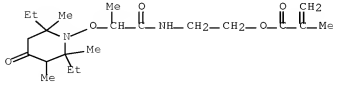
PAGE 1-A



PAGE 1-B

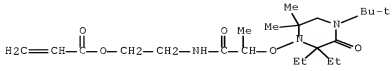


RN 871205-78-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]amino]ethyl ester (CA INDEX NAME)

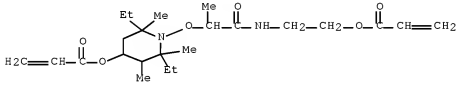


RN 871205-79-7 HCAPLUS

CN 2-Propenoic acid, 2-[[2-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]-1-oxopropyl]amino]ethyl ester (CA INDEX NAME)

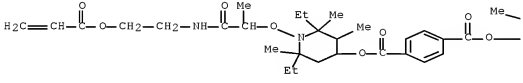


RN 871205-81-1 HCAPLUS
CN 2-Propenoic acid, 2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[[2-[(1-oxo-2-propen-1-yl)oxy]ethyl]amino]ethoxy]-4-piperidinyl ester (CA INDEX NAME)

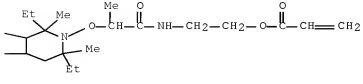


RN 871205-82-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, 1,4-bis[2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[[2-[(1-oxo-2-propen-1-yl)oxy]ethyl]amino]ethoxy]-4-piperidinyl] ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 871205-83-3 HCAPLUS
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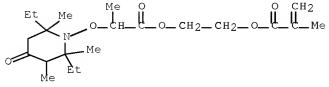
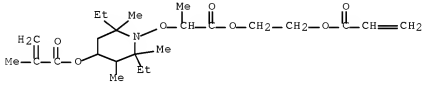
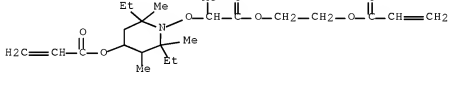


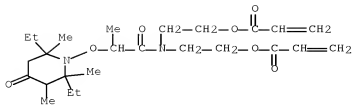
RN 871205-84-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[2-[(1-oxo-2-propen-1-yl)oxy]ethoxy]ethoxy]-4-piperidinyl ester (CA INDEX NAME)



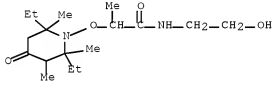
RN 871205-85-5 HCAPLUS
CN 2-Propenoic acid, 2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[2-[(1-oxo-2-propen-1-yl)oxy]ethoxy]ethoxy]-4-piperidinyl ester (CA INDEX NAME)



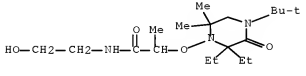
RN 871205-86-6 HCAPLUS
CN 2-Propenoic acid, [[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



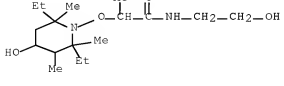
RN 871205-88-8 HCAPLUS
CN Propanamide, 2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-N-(2-hydroxyethyl)- (CA INDEX NAME)



RN 871205-89-9 HCAPLUS
CN Propanamide, 2-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]-N-(2-hydroxyethyl)- (CA INDEX NAME)



RN 871205-91-3 HCAPLUS
CN Propanamide, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-N-(2-hydroxyethyl)- (CA INDEX NAME)



RN 871205-92-4 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, 1,4-bis[2,6-diethyl-1-[2-[(2-hydroxyethyl)amino]-1-methyl-2-oxoethoxy]-2,3,6-trimethyl-4-

piperidinyl] ester (CA INDEX NAME)

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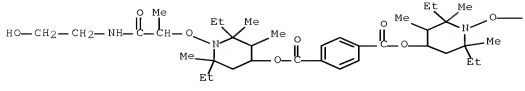
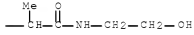
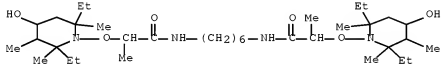


PAGE 1-B

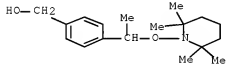


IT 485844-70-0
(alkoxyamines containing a radically polymerizable group)
RN 485844-70-0 HCAPLUS
CN Propanamide, N,N'-1,6-hexanediylbis[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]- (CA INDEX NAME)

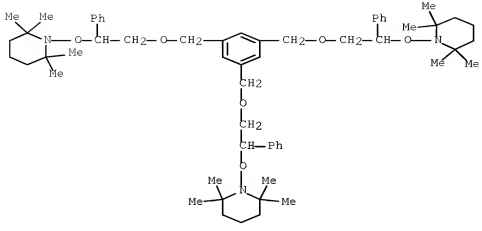


IC ICM C08F004-00
ICS C07D211-94; C07D241-08; C07F009-40
CC 35-2 (Chemistry of Synthetic High Polymers)
IT 42275-81-0P 639809-62-4P 756490-05-8P 871205-74-2P
871205-75-3P 871205-76-4P 871205-77-5P
871205-78-6P 871205-79-7P 871205-80-0P
871205-81-1P 871205-82-2P 871205-83-3P
871205-84-4P 871205-85-5P 871205-86-6P
871205-88-8P 871205-89-9P 871205-90-2P
871205-91-3P 871205-92-4P
(alkoxyamines containing a radically polymerizable group)
IT 100-20-9, Terephthaloylchloride 141-43-5, Ethanolamine, reactions
814-68-6, Acryloylchloride 2736-37-0, Isobutyrylbromide 3030-47-5
17639-93-9, 2-Chloropropionic acid methylester 51210-48-1
61746-17-6 188065-73-8 188526-94-5 264279-93-8
485844-70-0 871205-87-7
(alkoxyamines containing a radically polymerizable group)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:15040 HCAPLUS Full-text
DOCUMENT NUMBER: 142:261830
TITLE: Multi-armed, TEMPO-functionalized unimolecular initiators for starburst dendrimer synthesis via stable free radical polymerization. 2. Tris (1,3,5)benzyloxy unimers
AUTHOR(S): Ghani, Mohmad Asri Abd; Abdallah, Dalia; Kazmaier, Peter M.; Keoshkerian, Barkev; Buncel, Erwin
CORPORATE SOURCE: Department of Chemistry, Queen's University, Kingston, ON, K7L 3N6, Can.
SOURCE: Canadian Journal of Chemistry (2004), 82(9), 1403-1412
CODEN: CJCHAG; ISSN: 0008-4042
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:261830
ED Entered STN: 07 Jan 2005
AB The synthesis of the trifunctionalized TEMPO-modified unimol. initiators, unimers I, II, and III is described. Unimer I was prepared via an SN2 type Williamson ether coupling of 1,3,5- tris(iodomethyl)benzene with a TEMPO-containing ethylbenzene hydroxy derivative The synthesis of unimer II, however, was accomplished through SN1 reaction of 1,3,5-tris(bromomethyl)benzene with the hydroxy-ethylbenzene TEMPO derivative in the presence of silver triflate. Synthesis of unimer III started from phloroglucinol and an SNAr reaction with 1-fluoro-4-nitrobenzene, followed by reduction to the amino compound and Schiff base formation with the TEMPO-derivatized aromatic aldehyde. Stable free radical polymerization (SFRP) of styrene and acetoxystyrene with unimer I are also described with mol. wts. and polydispersities reported. It is concluded that the SFRP of styrene with a triradical initiator meets the requirements of a living system.
IT 209550-24-3P 372522-45-7P 845745-22-4P 845745-23-5P
(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol. initiators for radical polymerization of styrene and acetoxystyrene)
RN 209550-24-3 HCAPLUS
CN Benzenemethanol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)

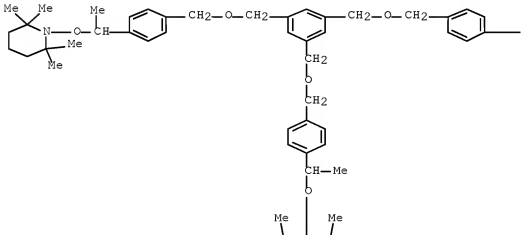


RN 372522-45-7 HCAPLUS
CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris[methyleneoxy(1-phenyl-2,1-ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 845745-22-4 HCAPLUS
CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris(methyleneoxymethylene-4,1-phenyleneethylideneoxy)]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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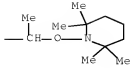
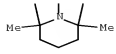
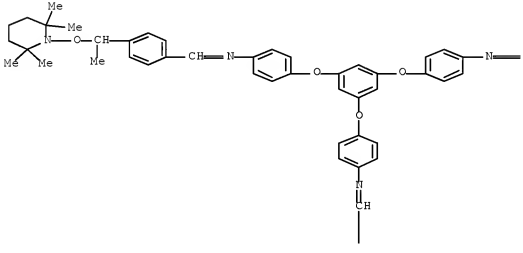


PAGE 2-A

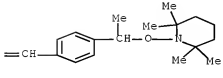


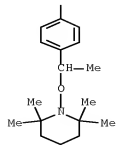
RN 845745-23-5 HCAPLUS
CN Benzenamine, 4,4',4''-[1,3,5-benzenetriyltris(oxy)]tris[N-[[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl]methylene]- (9CI) (CA INDEX NAME)

PAGE 1-A

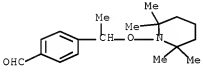


PAGE 1-B

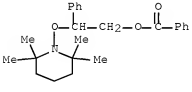




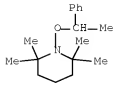
IT 209550-23-2
(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol. initiators for radical polymerization of styrene and acetoxystyrene)
RN 209550-23-2 HCAPLUS
CN Benzaldehyde, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



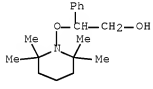
IT 81913-53-3P 154554-67-3P 161776-41-6P
(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol. initiators for radical polymerization of styrene and acetoxystyrene)
RN 81913-53-3 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



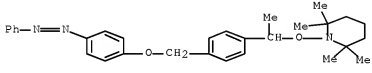
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 209550-24-3P 372522-45-7P 845745-22-4P 845745-23-5P
(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol. initiators for radical polymerization of styrene and acetoxystyrene)
IT 94-36-0, BPO, reactions 100-41-4, Ethylbenzene, reactions 100-42-5, Styrene, reactions 108-73-6, 1,3,5-Trihydroxybenzene 350-46-9, 4-Fluoro-nitrobenzene 1074-61-9, 4-Vinylbenzyl alcohol 1876-22-8, Di-tert-butylperoxyoxalate 2564-83-2, TEMPO 18226-42-1, 1,3,5-Tris(bromomethyl)benzene 90678-60-7, 1,3,5-Tris(iodomethyl)benzene 102852-91-5 209550-23-2
(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol. initiators for radical polymerization of styrene and acetoxystyrene)
IT 81913-53-3P 102852-92-6P 154554-67-3P 161776-41-6P
(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol. initiators for radical polymerization of styrene and acetoxystyrene)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

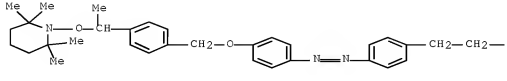
L41 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:15039 HCAPLUS Full-text
DOCUMENT NUMBER: 142:261829
TITLE: Multi-armed, TEMPO-functionalized unimolecular initiators for starburst dendrimer synthesis via stable free radical polymerization. 1. Tri azofunctionalized unimer
AUTHOR(S): Abdallah, Dalia; Ghani, Mohmad Asri Abd; Cunningham, Michael F.; Kazmaier, Peter M.; Keoshkerian, Barkev; Buncel, Erwin

CORPORATE SOURCE: Department of Chemistry, Queen's University, Kingston, ON, K7L 3N6, Can.
SOURCE: Canadian Journal of Chemistry (2004), 82(9), 1393-1402
CODEN: CJCHAG; ISSN: 0008-4042
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:261829
ED Entered STN: 07 Jan 2005
AB The synthesis of azobenzene-functionalized multi-armed unimol. initiators or "unimers" that can be polymerized using styrene or styrenic derivs. via TEMPO (2,2,6,6-tetramethylpiperidenyl-1-oxyl) mediated stable free radical polymerization (SFRP) is described. The unimers are composed of an azobenzene-functionalized core and a TEMPO-modified unit. Homopolymers and copolymers of styrene and acetoxystyrene were synthesized using the mono-and trifunctionalized unimers as initiators under bulk conditions with average mol. wts. and polydispersities reported. The studies lay the groundwork for further investigations involving SFRP towards building a light harvesting system by introducing chromophores onto the polymer chains for capturing light and thence transferring it to the azobenzene core.
IT 845728-31-6P 845728-32-7P 845728-34-9P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst dendrimer synthesis via stable radical polymerization)
RN 845728-31-6 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-[[4-(2-phenyldiazenyl)phenoxy]methyl]phenyl]ethoxy]- (CA INDEX NAME)

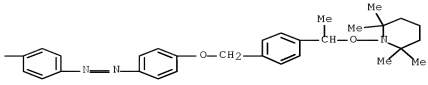


RN 845728-32-7 HCAPLUS
CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenyleneazo-4,1-phenyleneoxymethylene-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

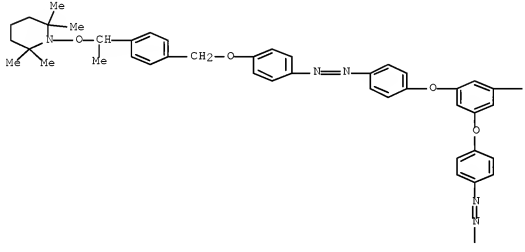


PAGE 1-B

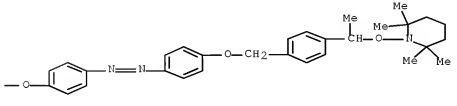


RN 845728-34-9 HCAPLUS
CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris(oxy-4,1-phenyleneazo-4,1-phenyleneoxymethylene-4,1-phenyleneethylideneoxy)]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

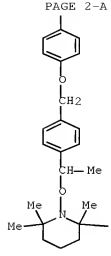
PAGE 1-A



PAGE 1-B



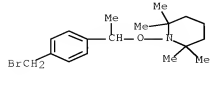
PAGE 2-A



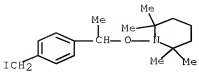
PAGE 2-B

—Me

IT 492446-76-1P 845728-30-5P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst dendrimer synthesis via stable radical polymerization)
RN 492446-76-1 HCAPLUS
CN Piperidine, 1-[1-[4-(bromomethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



RN 845728-30-5 HCAPLUS
CN Piperidine, 1-[1-[4-(iodomethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 1876-22-8P, Di-tert-Butyl peroxyoxalate 845728-31-6P 845728-32-7P 845728-34-9P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst dendrimer synthesis via stable radical polymerization)
IT 768-59-2P 57825-30-6P 90264-99-6P 102852-91-5P 102852-92-6P 432446-76-1P 845728-30-5P 845728-33-8P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst dendrimer synthesis via stable radical polymerization)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:698181 HCAPLUS Full-text
DOCUMENT NUMBER: 141:207985
TITLE: High-gloss rubber-modified monovinylidene aromatic polymers produced by mass polymerization process
INVENTOR(S): Vanspeybroeck, Rony S.; Ceraso, Joseph M.; Galobardes, Mercedes R.; Bouquet, Gilbert; Maes, Dominique
PATENT ASSIGNEE(S): Dow Global Technologies Inc., USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072172	A2	20040826	WO 2004-US978 <--	20040115
WO 2004072172	A3	20071227		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, EP, OA

CA 2515038	A1	20040826	CA 2004-2515038 <--	20040115
EP 1618148	A2	20060125	EP 2004-702520 <--	20040115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 101006112	A	20070725	CN 2004-80003684 <--	20040115
JP 2007525544	T	20070906	JP 2006-502831 <--	20040115
US 20060122331	A1	20060608	US 2005-541925 <--	20050712
US 7115684	B2	20061003		
PRIORITY APPLN. INFO.:			US 2003-445557P <--	P 20030205
			WO 2004-US978 <--	W 20040115

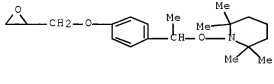
ED Entered STN: 26 Aug 2004

AB The mass polymerized rubber-modified polymeric composition comprises a continuous matrix phase of a polymer of a monovinylidene aromatic monomer (e.g., styrene), and optionally, an ethylenically unsatd. nitrile monomer (e.g., acrylonitrile), and rubber particles dispersed in the matrix, wherein the rubber particles produced from a rubber component containing 5-100% functionalized diene rubber (e.g., styrene-butadiene block rubber terminated with 8,8,10,10-tetramethyl-9-{1-(4-oxiranylmethoxy-phenyl)-ethoxy}1,5-dioxa-9-aza-spiro{5.5}undecane). The composition has (a) volume average rubber particle size 0.15-0.35 μ, (b) total rubber phase volume 12-45%, based on the total volume of the combination of the matrix phase and the rubber particles; (c) partial rubber phase volume 2-20% characterized by rubber particles having volume average particle size >0.40 μ; and (d) crosslinked rubber fraction ≥85%, based on the total weight of the rubber particles.

IT 243972-05-6D, reaction products with block rubber
434898-80-3D, reaction products with block rubber
437994-48-4D, reaction products with styrene-butadiene block rubber
(high-gloss rubber-modified monovinylidene aromatic polymers produced by mass polymerization process)

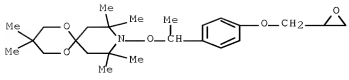
RN 243972-05-6 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

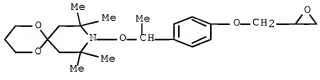


RN 434898-80-3 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl-9-[1-[4-(2-oxiranylmethoxy)phenyl]ethoxy]- (CA INDEX NAME)



RN 437994-48-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



IC ICM C08L
CC 37-6 (Plastics Manufacture and Processing)
IT 2564-83-2D, TEMPO, reaction products with block rubber
243972-05-6D, reaction products with block rubber
434898-80-3D, reaction products with block rubber
437994-48-4D, reaction products with styrene-butadiene block rubber
(high-gloss rubber-modified monovinylidene aromatic polymers produced by mass polymerization process)

L41 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:696403 HCAPLUS Full-text
DOCUMENT NUMBER: 141:226795
TITLE: Preparation of rubber reinforced monovinylidene aromatic polymers
INVENTOR(S): Bouquet, Gilbert; Vanspeybroeck, Rony S.
PATENT ASSIGNEE(S): Dow Global Technologies Inc., USA
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072136	A1	20040826	WO 2004-US962	20040115
			<--	

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,

CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2515194	A1	20040826	CA 2004-2515194 <--	20040115
EP 1592722	A1	20051109	EP 2004-702504 <--	20040115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1795218	A	20060628	CN 2004-80003681 <--	20040115
JP 2006517002	T	20060713	JP 2006-502825 <--	20040115
US 20060058465	A1	20060316	US 2005-543121 <--	20050722
PRIORITY APPLN. INFO.:			US 2003-445729P <--	P 20030205
			WO 2004-US962 <--	W 20040115

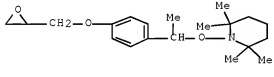
ED Entered STN: 26 Aug 2004

AB A rubber reinforced polymer having grafted rubber particles dispersed in polymer matrix, which has rubber particle size, distribution and morphol. controlled, is prepared by a mass/solution polymerization process of a vinyl aromatic monomer, such as styrene, and functionalized diene rubbers containing functional group capable of forming stable free radicals, such as TEMPO, or functional group capable of atom transfer radical polymerization or reversible addition-fragmentation chain transfer polymerization, in the presence of an initiator and a chain transfer agent. Rubber reinforced polymer with bimodal rubber particle size is obtained by conducting the polymerization in sep. reactor and then combining both reactor streams and continuing the polymerization Thus, TEMPO-functionalized styrene-butadiene rubber, styrene, and acrylonitrile were polymerized in the presence of 1,1-di(t-butylperoxy)cyclohexane and N-dodecylmercaptan to obtain rubber-reinforced plastics.

IT 243972-05-6 434898-80-3
(preparation of rubber reinforced monovinylidene aromatic polymers)

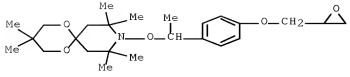
RN 243972-05-6 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



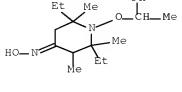
RN 434898-80-3 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl-9-[1-[4-(2-oxiranylmethoxy)phenyl]ethoxy]- (CA INDEX NAME)



IC ICM C08F279-02
ICS C08F287-00
CC 39-15 (Synthetic Elastomers and Natural Rubber)
Section cross-reference(s): 37
IT 2564-83-2, TEMPO 3006-86-8, 1,1-Di(tert-butyl peroxy)cyclohexane
243972-05-6 434898-80-3
(preparation of rubber reinforced monovinylidene aromatic polymers
)

L41 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:535765 HCAPLUS Full-text
DOCUMENT NUMBER: 141:207557
TITLE: New 7-membered diazepanone alkoxyamines for nitroxide-mediated radical polymerization
AUTHOR(S): Nesvadba, Peter; Bugnon, Lucienne; Sift, Rosemarie
CORPORATE SOURCE: Ciba Specialty Chemicals Incorporated, Basel, CH-4002, Switz.
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2004), 42(13), 3332-3341
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Jul 2004
AB The synthesis of new 7-membered diazepanone alkoxyamines [2,2,7,7-tetramethyl-1-(1-phenyl-ethoxy)-[1,4]diazepan-5-one (3) and 2,7-diethyl-2,3,7-trimethyl-1-(1-phenyl-ethoxy)-[1,4]diazepan-5-one (8)] through the Beckmann rearrangement of piperidin-4-one alkoxyamines was developed. Both 3 and 8 were evaluated as initiators and regulators for the nitroxide-mediated radical polymerization of styrene and Bu acrylate. 8, A sterically highly hindered alkoxyamine readily available as a crystalline solid, allowed the fast and controlled polymerization and preparation of polymers with low polydispersity indexes (1.2-1.4) up to a d.p. of about 100.
IT 478697-26-6P
(7-membered diazepanone alkoxyamines for nitroxide-mediated radical polymerization)
RN 478697-26-6 HCAPLUS
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 51210-48-1P 61682-93-7P 122586-81-6P 244021-01-0P 264280-63-9P
264280-71-9P 478697-26-6P 478697-55-1P
(7-membered diazepanone alkoxyamines for nitroxide-mediated radical polymerization)
REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:430843 HCAPLUS Full-text
DOCUMENT NUMBER: 141:7653
TITLE: Preparation of hydroxy-vinyl-aromatic polymers or copolymers by anionic or controlled radical polymerization
INVENTOR(S): Kunimoto, Kazuhiko; Nesvadba, Peter; Kramer, Andreas
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004044017	A1	20040527	WO 2003-EP50793	20031105
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003301974	A1	20040603	AU 2003-301974	20031105
EP 1572758	A1	20050914	EP 2003-810997	20031105
EP 1572758	B1	20070718		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1711290	A	20051221	CN 2003-80103187	20031105
JP 2006506480	T	20060223	JP 2004-551039	20031105
AT 367406	T	20070815	AT 2003-810997	20031105
US 20060041080	A1	20060223	US 2005-533574	20050503
PRIORITY APPLN. INFO.:			EP 2002-405980 A	20021114
			WO 2003-EP50793 W	20031105

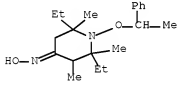
OTHER SOURCE(S): MARPAT 141:7653
ED Entered STN: 27 May 2004
AB The hydroxy-vinyl-aromatic polymers in particular 4-hydroxystyrene polymers or copolymers are made by anionic or controlled radical polymerization of the resp. monomer, where the hydroxy functionality is blocked with a protective group which is subsequently removed in a hydrogenation process. The resulting

(co)polymers have a narrow polydispersity and are useful for manufacturing photoresists. Thus, 4-benzyloxystyrene (450 mmol) and 2,6-diethyl-2,3,6-trimethyl-1-(1- phenylethoxy)piperidin-4-one oxime (4.50 mmol) are heated to 130° and stirred for 6 h under Ar, cooled down to room temperature, dissolved in CH2Cl2 (120 mL), and precipitated in MeOH, giving polymer with Mn 9787, Mw/Mn 1.17, which was hydrogenated.

IT 478697-26-6P, 2,6-Diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)piperidine-4-one oxime
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)

RN 478697-26-6 HCAPLUS

CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime (CA INDEX NAME)



IC ICM C08F012-22
ICS G03F007-039

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 478697-26-6P, 2,6-Diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)piperidine-4-one oxime
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:140830 HCAPLUS Full-text

DOCUMENT NUMBER: 140:321838

TITLE: Nitroxide-mediated radical polymerization with bisaminooxy compounds as initiators - controlled biradical polymerization

AUTHOR(S): Bothe, Marc; Schmidt-Naake, Gudrun

CORPORATE SOURCE: Institut fuer Technische Chemie, Technische Universitaet Clausthal, Clausthal-Zellerfeld, D-38678, Germany

SOURCE: Macromolecular Chemistry and Physics (2004), 205(2), 208-216
CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Feb 2004

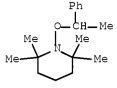
AB The bisaminooxy compds. Bis-TEMPO and Bis-TIPNO derived from 2,2,6,6-tetramethyl-piperidine-1-oxyl (TEMPO) and 2,2,5-trimethyl-4- phenyl-3-azahexane-3-oxyl (TIPNO) were applied as "biradical initiators" for the nitroxide-mediated radical polymerization (NMRP) of styrene and Bu acrylate.

It was shown by comparison with analogous alkoxyamines as unimol. initiators and mixing expts. of mono- and biradical species, that in the case of the biradical initiators chain growth occurs at both sides under NMRP conditions. This enables a two-step synthesis of A-B-A-triblock copolymers. Kinetics and mol. mass development were studied for the controlled biradical polymerization of styrene at different initiator concns., temps., and with addition of acetic anhydride as accelerator. For the controlled biradical polymerization of Bu acrylate with Bis-TIPNO, the effect of added free nitroxide relative to the initiator concentration was studied. The poly(styrene-block-Bu acrylate-block-styrene) copolymers with higher block length prepared by this method show two glass transition temps., which indicates microphase separation of the polymer blocks.

IT 154554-67-3 596135-22-7
(nitroxide-mediated radical polymerization of Bu acrylate and styrene with bisaminooxy initiators)

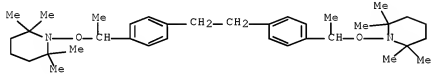
RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 596135-22-7 HCAPLUS

CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)

IT 154554-67-3 227000-59-1 596135-22-7 596135-24-9
(nitroxide-mediated radical polymerization of Bu acrylate and styrene with bisaminooxy initiators)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:76619 HCAPLUS Full-text

DOCUMENT NUMBER: 140:112181

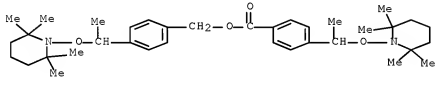
TITLE: Manufacture of polymers having dissociative electron attachment groups and scission of the polymer main chains

INVENTOR(S): Ichikawa, Tsuneki; Koizumi, Hitoshi; Shimizu, Akira

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004026981	A	20040129	JP 2002-184301 <--	20020625
PRIORITY APPLN. INFO.:			JP 2002-184301 <--	20020625

ED Entered STN: 30 Jan 2004
AB The polymers, useful for resists for radiation lithog., are manufactured by reaction of monomers capable of living polymerization with compds. having living polymerization initiating groups on both ends via dissociative electron attachment groups which cleave by attachment of dissociative electron. The polymer main chain is cut by irradiation of electromagnetic wave or particle beam having energy sufficient to ionize the mol. Thus, 4-[1-(2,2,6,6-tetramethylpiperidinyl-1-oxy)ethyl]benzyl alc. was esterified with 4-[1-(2,2,6,6-tetramethylpiperidinyl-1- oxy)ethyl]benzoic acid, then the resulting ester was added 2% to styrene and heated to 130°, when living radical polymerization reaction occurred. The polymer was cut in half by irradn of γ-ray.
IT 647849-32-9P
(manufacture of living polymers having radiation-cleavable structure in main chain)
RN 647849-32-9 HCAPLUS
CN Benzoic acid, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-, [4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl]methyl ester (CA INDEX NAME)



IC ICM C08F004-00
ICS C08F012-00; C08F020-00; C08J003-28; C08L101-00
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 25, 27, 74
IT 647849-32-9P
(manufacture of living polymers having radiation-cleavable structure in main chain)

L41 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:54261 HCAPLUS Full-text
DOCUMENT NUMBER: 140:94477
TITLE: Initiators for nitroxide-mediated polymerization based on azlactone or their ring-opened derivatives
INVENTOR(S): Fansler, Duane D.; Lewandowski, Kevin M.;

Wendland, Michael S.; Gaddam, Babu N.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6680362	B1	20040120	US 2003-358767 <--	20030205
US 20040152853	A1	20040805	US 2003-726956 <--	20031203
US 6784265	B2	20040831		
WO 2004072139	A1	20040826	WO 2004-US1130 <--	20040116
WO 2004072139	A8	20050224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1590387	A1	20051102	EP 2004-702949 <--	20040116
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006516669	T	20060706	JP 2006-502858 <--	20040116
PRIORITY APPLN. INFO.:			US 2003-358767 <--	A3 20030205
			WO 2004-US1130 <--	W 20040116

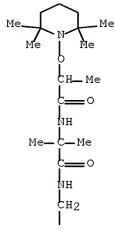
OTHER SOURCE(S): MARPAT 140:94477
ED Entered STN: 22 Jan 2004
AB A controlled radical polymerization initiator comprises R5ZCO(CH2)nCR3R4NHCOQCR1[(CH2)qX][CH2CR1[QCONHCR3R4(CH2)nCOZR5]]mONR22 , wherein X is an H, an alkyl group, a cycloalkyl group, a heterocyclic group, an arenyl group, an aryl group, a nitrile, an acyl group or the residue of a free-radical initiator; R1 is H, an alkyl group, a cycloalkyl group, a heterocyclic group, an arenyl group or an aryl group; ON(R2)2 is the residue of an organonitroxide; R3 and R4 are each independently selected from an alkyl, a cycloalkyl group, an aryl group, an arenyl group, or R3 and R4 taken together with the carbon to which they are attached form a carbocyclic ring; Q is a linking group selected from a covalent bond, (CH2)o, CO2(CH2)o, CO2(CH2CH2O)o, CONR6(CH2)o, COS(CH2)o, where o is 1 to 12, and R6 is H, an alkyl group, a cycloalkyl group, an arenyl group, a heterocyclic group or an aryl group; each n is 0 or 1; m is 0 to 20; q is 0 or 1; Z is O, S or NR6, wherein R6 is H, an alkyl group, a cycloalkyl group, an arenyl group, a heterocyclic group or an aryl group; R5 is an organic or inorg. moiety and has a valency of p. The initiators have an azlactone or ring-opened azlactone moiety to provide telechelic (co)polymers. 4,4-Dimethyl-2-[1-(2,2,6,6-tetramethylpiperidin-1- yloxy)-ethyl]-4H-ox azol-5-one was prepared and used in polymerization of styrene.
IT 64249-67-2P

(initiators for nitroxide-mediated polymerization based on azlactone or their ring-opened derivs.)

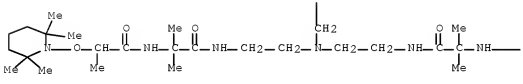
RN 642479-67-2 HCAPLUS

CN Propanamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris[2-methyl-2-[(1-oxo-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]propyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



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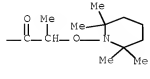


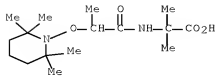
IT 642479-63-8P

(initiators for nitroxide-mediated polymerization based on azlactone or their ring-opened derivs.)

RN 642479-63-8 HCAPLUS

CN Alanine, 2-methyl-N-[1-oxo-2-[(2,2,6,6-tetramethyl-1-

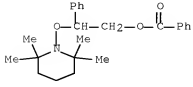
piperidinyl)oxy]propyl]- (CA INDEX NAME)



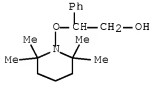
IC ICM C08F002-00
INCL 526217000; 526222000; 526224000; 526265000; 526271000; 526287000; 526291000; 526303100; 526304000; 526306000
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 642479-67-2P
(initiators for nitroxide-mediated polymerization based on azlactone or their ring-opened derivs.)
IT 642479-59-2P 642479-61-6P 642479-63-8P
(initiators for nitroxide-mediated polymerization based on azlactone or their ring-opened derivs.)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:42401 HCAPLUS Full-text
DOCUMENT NUMBER: 140:236159
TITLE: Synthesis of Nanosized "Cored" Star Polymers
AUTHOR(S): Beil, James B.; Zimmerman, Steven C.
CORPORATE SOURCE: Department of Organic Chemistry, University of Illinois at Urbana Champaign, Urbana, IL, 61801, USA
SOURCE: Macromolecules (2004), 37(3), 778-787
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 19 Jan 2004
AB A synthetic approach to nanosized "cored" star polymers is reported. A 5,10,15,20-tetrakis(4-carboxyphenyl)porphyrin core was functionalized with four 2,2,6,6-tetramethylpiperidinyl-1-oxy (TEMPO) initiating groups. Four-armed star copolymers of styrene and 4-hydroxystyrene were synthesized and functionalized with 3,5-di(3-buten-1-oxy) benzyl bromide groups but exhibited poor solubility As an alternative, 5,10,15,20-tetrakis(3',5'-dihydroxyphenyl)porphyrin was functionalized with 2-bromo-2-methyl-propionyl groups capable of initiating atom transfer radical polymerization (ATRP). Copolymn. of the core initiator with 1-but-3-enyl-4-vinylbenzene and styrene at low conversion produced soluble eight-armed star block copolymers. Through the ring-closing metathesis (RCM) reaction, the alkene groups of the polymer were intramolecularly cross-linked. The ester groups linking the cross-linked polymer arms to the porphyrin core were hydrolyzed, producing a "cored" star polymer with a mol. weight of approx. 20 kDa and a polydispersity index (PDI) of 1.5.
IT 81913-53-3
(in preparation of nanosized "Cored" star polymers)
RN 81913-53-3 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-,

1-benzoate (CA INDEX NAME)

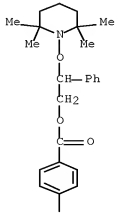


IT 161776-41-6P
(in preparation of nanosized "Cored" star polymers)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



IT 668420-45-9P
(polymerization catalyst; in preparation of nanosized "Cored" star polymers)
RN 668420-45-9 HCAPLUS
CN Benzoic acid, 4,4',4'',4'''-(21H,23H-porphine-5,10,15,20-tetrayl)tetrakis-, tetrakis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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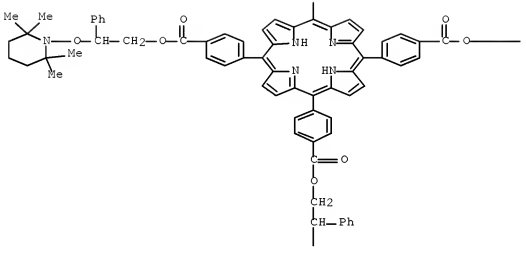
PAGE 2-A



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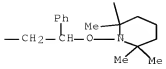

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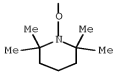

CC 35-4 (Chemistry of Synthetic High Polymers)
IT 14609-54-2, 5,10,15,20-Tetrakis(4-carboxyphenyl)porphyrin 20769-85-1
81913-53-3 145764-54-1 221208-75-9
(in preparation of nanosized "Cored" star polymers)
IT 70449-39-7P 161776-41-6P 668420-46-0P 668420-47-1P
668420-50-6P
(in preparation of nanosized "Cored" star polymers)
IT 668420-45-9P 668420-51-7P
(polymerization catalyst; in preparation of nanosized "Cored" star polymers)
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:33987 HCAPLUS Full-text
DOCUMENT NUMBER: 140:94467
TITLE: Azlactone initiators for nitroxide-mediated polymerization
INVENTOR(S): Lewandowski, Kevin M.; Fansler, Duane D.; Wendland, Michael S.; Gaddam, Babu N.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6677413	B1	20040113	US 2003-358724 <--	20030205
US 20040152852	A1	20040805	US 2003-726405 <--	20031203
US 6784264	B2	20040831		
WO 2004072127	A1	20040826	WO 2003-US41366 <--	20031223

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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003297540	A1	20040906	AU 2003-297540 <--	20031223
EP 1590374	A1	20051102	EP 2003-815923 <--	20031223
EP 1590374	B1	20060614		
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JP 2006514133	T	20060427	JP 2004-568343 <--	20031223
AT 329933	T	20060715	AT 2003-815923 <--	20031223
PRIORITY APPLN. INFO.:			US 2003-358724 <--	A3 20030205
			WO 2003-US41366 <--	W 20031223

OTHER SOURCE(S): MARPAT 140:94467

ED Entered STN: 15 Jan 2004

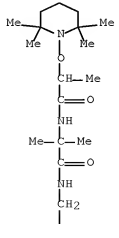
AB The initiators have an azlactone or ring-opened azlactone moiety to provide telechelic (co)polymers. AzTEMPO (0.00066 mol) and styrene (0.132 mol) were mixed in toluene, the solution was deoxygenated by bubbling N (g) through it for 30 min and heated to 130°, after 16 h the product had Mn 20,611 g/mol, then a 1% solution of tris(2-aminoethyl)amine (0.000226 mol) in toluene was added in two portions to give a three-arm polystyrene of Mn 50,061 g/mol.

IT 642479-67-2P
(azlactone initiators for nitroxide-mediated polymerization of styrene)

RN 642479-67-2 HCAPLUS

CN Propanamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris[2-methyl-2-[[1-oxo-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]propyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



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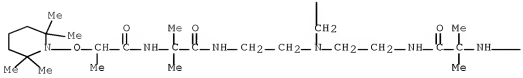

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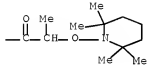
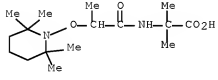


IT 642479-63-8P
(ring closure reaction; azlactone initiators for nitroxide-mediated polymerization of styrene)
RN 642479-63-8 HCAPLUS
CN Alanine, 2-methyl-N-[1-oxo-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]propyl]- (CA INDEX NAME)



IC ICM C08F002-00
INCL 526204000; 526217000; 526222000; 526224000; 526265000; 526271000; 526287000; 526291000; 526303100; 526304000
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67
IT 642479-67-2P
(azlactone initiators for nitroxide-mediated polymerization of styrene)
IT 642479-63-8P
(ring closure reaction; azlactone initiators for nitroxide-mediated polymerization of styrene)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:2855 HCAPLUS Full-text
DOCUMENT NUMBER: 140:77932
TITLE: Cationic alkoxyamines and their use in producing

nanoparticles from natural or synthetic clays

INVENTOR(S): Muehlebach, Andreas; Nesvadba, Peter; Kramer, Andreas

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000809	A1	20031231	WO 2003-EP6370	20030617
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CA 2486958	A1	20031231	CA 2003-2486958	20030617
AU 2003279373	A1	20040106	AU 2003-279373	20030617
EP 1515950	A1	20050323	EP 2003-740262	20030617
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1662499	A	20050831	CN 2003-814665	20030617
JP 2005538964	T	20051222	JP 2004-514745	20030617
MX 2004PA12885	A	20050331	MX 2004-PA12885	20041217
US 20050215691	A1	20050929	US 2004-519030	20041222

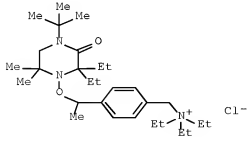
PRIORITY APPLN. INFO.:

EP 2002-405520	A	20020624
WO 2003-EP6370	W	20030617

OTHER SOURCE(S): MARPAT 140:77932

ED Entered STN: 02 Jan 2004

GI



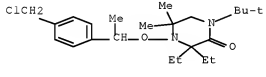
I

AB The instant invention relates to cationic alkoxyamines such as I, which are useful as polymerization initiators/regulators in a controlled stable free radical polymerization of unsatd. compds. in the presence of nanoparticles of natural or synthetic clays to produce intercalated and/or exfoliated nanoparticles. The invention also relates to improved nanocomposites produced by this process and to the use of these nanocomposite compns. as, for example, coatings, sealants, caulks, adhesives and as plastic additives.

IT 639809-39-7P, 1-tert-Butyl-4-[1-[4-(chloromethyl)phenyl]ethoxy]-3,3-diethyl-5,5-dimethylpiperazin-2-one 639809-51-1P, 1-tert-Butyl-3,3-diethyl-5,5-dimethyl4-[1-[4-(4-methylpiperazin-1-ylcarbonyl)phenyl]ethoxy]piperazin-2-one 639809-54-4P, 2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-56-6P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-60-2P, 2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-one O-(3-dimethylaminopropyl) oxime 639809-63-5P, Bis[2,6-diethyl-1-[1-(3-dimethylaminopropylcarbamoyl)ethoxy]-2,3,6-trimethylpiperidin-4-yl] terephthalate 639809-65-7P, N-(3-Dimethylaminopropyl)-2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionamide 639809-67-9P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)-2-methylpropionamide 639809-73-7P
(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

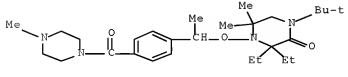
RN 639809-49-7 HCAPLUS

CN 2-Piperazinone, 4-[1-[4-(chloromethyl)phenyl]ethoxy]-1-(1,1-dimethylethyl)-3,3-diethyl-5,5-dimethyl- (CA INDEX NAME)



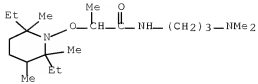
RN 639809-51-1 HCAPLUS

CN 2-Piperazinone, 1-(1,1-dimethylethyl)-3,3-diethyl-5,5-dimethyl-4-[1-[4-[(4-methyl-1-piperazinyl)carbonyl]phenyl]ethoxy]- (CA INDEX NAME)

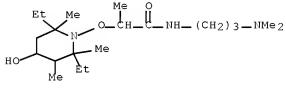


RN 639809-54-4 HCAPLUS

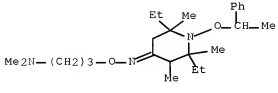
CN Propanamide, 2-[(2,6-diethyl-2,3,6-trimethyl-1-piperidinyl)oxy]-N-[3-(dimethylamino)propyl]- (CA INDEX NAME)



RN 639809-56-6 HCAPLUS
CN Propanamide, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-N-[3-(dimethylamino)propyl]- (CA INDEX NAME)

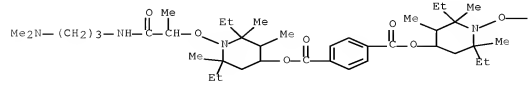


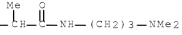
RN 639809-60-2 HCAPLUS
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, O-[3-(dimethylamino)propyl]oxime (CA INDEX NAME)



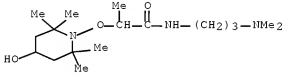
RN 639809-63-5 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, 1,4-bis[1-[2-[[3-(dimethylamino)propyl]amino]-1-methyl-2-oxoethoxy]-2,6-diethyl-2,3,6-trimethyl-4-piperidinyl] ester (CA INDEX NAME)

PAGE 1-A

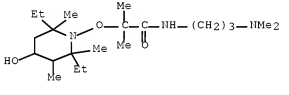




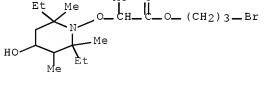
RN 639809-65-7 HCAPLUS
CN Propanamide, N-[3-(dimethylamino)propyl]-2-[(4-hydroxy-2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



RN 639809-67-9 HCAPLUS
CN Propanamide, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-N-[3-(dimethylamino)propyl]-2-methyl- (CA INDEX NAME)

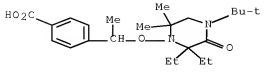


RN 639809-73-7 HCAPLUS
CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 3-bromopropyl ester (CA INDEX NAME)

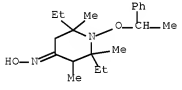


IT 319458-08-7, 4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoic acid 478697-26-6
(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)
RN 319458-08-7 HCAPLUS

CN Benzoic acid, 4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]- (CA INDEX NAME)



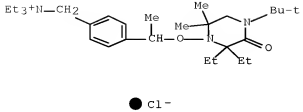
RN 478697-26-6 HCAPLUS
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime (CA INDEX NAME)



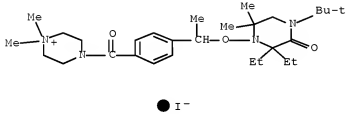
IT 639809-48-6P, [4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzyl]triethylammonium chloride 639809-50-0P, 4-[4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoyl]-1,1-dimethylpiperazin-1-ium iodide 639809-52-2P, [3-[2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide 639809-55-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide 639809-59-9P, [3-[2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-ylideneaminooxy]propyl]dimethylethylammonium bromide 639809-61-3P, Bis[[3-[2-(2,6-diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide] terephthalate 639809-64-6P, Ethyl[3-[2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium bromide 639809-66-8P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylethylammonium bromide 639809-69-1P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylammonium chloride 639809-70-4P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium chloride 639809-71-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionyloxy]propyl]tributylphosphonium bromide
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

RN 639809-48-6 HCAPLUS
CN Benzenemethanaminium, 4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]-N,N,N-triethyl-, chloride

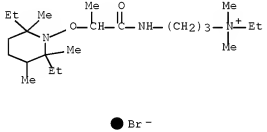
(1:1) (CA INDEX NAME)



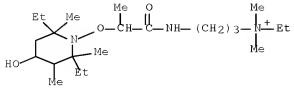
RN 639809-50-0 HCAPLUS
CN Piperazinium, 4-[4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]benzoyl]-1,1-dimethyl-, iodide (1:1)
(CA INDEX NAME)



RN 639809-52-2 HCAPLUS
CN 1-Propanaminium, 3-[[2-[(2,6-diethyl-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]-N-ethyl-N,N-dimethyl-, bromide
(1:1) (CA INDEX NAME)

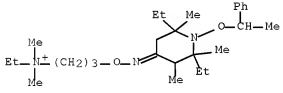


RN 639809-55-5 HCAPLUS
CN 1-Propanaminium, 3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]-N-ethyl-N,N-dimethyl-, bromide
(1:1) (CA INDEX NAME)



● Br −

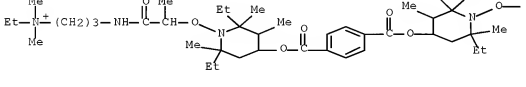
RN 639809-59-9 HCAPLUS
CN 1-Propanaminium, 3-[[[2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-4-piperidinylidene]amino]oxy]-N-ethyl-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)



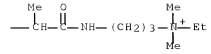
● Br −

RN 639809-61-3 HCAPLUS
CN 1-Propanaminium, 3,3'-[1,4-phenylenebis[carbonyloxy(2,6-diethyl-2,3,6-trimethyl-4,1-piperidinediyl)oxy(2-methyl-1-oxo-2,1-ethanediyl)imino]]bis[N-ethyl-N,N-dimethyl-, dibromide (9CI) (CA INDEX NAME)

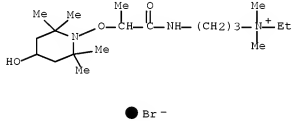
PAGE 1-A



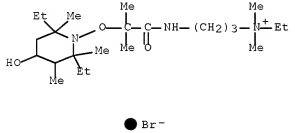
● 2 Br −



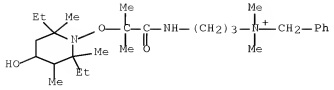
RN 639809-64-6 HCAPLUS
CN 1-Propanaminium, N-ethyl-3-[[2-[(4-hydroxy-2,2,6,6-tetramethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)



RN 639809-66-8 HCAPLUS
CN 1-Propanaminium, 3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-2-methyl-1-oxopropyl]amino]-N-ethyl-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)

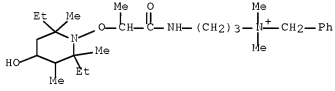


RN 639809-69-1 HCAPLUS
CN Benzenemethanaminium, N-[3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-2-methyl-1-oxopropyl]amino]propyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)



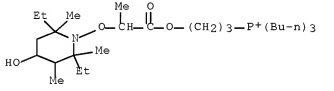
● Cl-

RN 639809-70-4 HCAPLUS
CN Benzenemethanaminium, N-[3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]propyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl-

RN 639809-71-5 HCAPLUS
CN Phosphonium, tributyl[3-[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]propyl]-, bromide (1:1) (CA INDEX NAME)



● Br-

IC ICM C07D211-94
ICS C07D241-08; C07F009-38; C08F002-00
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 23, 27, 28, 38, 42
IT Phosphonium compounds
Quaternary ammonium compounds, preparation
(alkoxyamino; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from

natural or synthetic clays for manufacture of nanocomposites)

IT Disperse systems
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposite dispersions)

IT Nanocomposites
Polymerization catalysts
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT Phyllosilicate minerals
Smectite-group minerals
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT Adhesives
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for adhesive additives)

IT Coating materials
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for coating additives)

IT Inks
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for ink additives)

IT Paints
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for paint additives)

IT Clay minerals
(intercalated, cationic alkoxyamine-; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT Plastics, miscellaneous
(thermoplastics; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for thermoplastics)

IT 188526-94-5P 639809-49-7P, 1-tert-Butyl-4-[1-[4-(chloromethyl)phenyl]ethoxy]-3,3-diethyl-5,5-dimethylpiperazin-2-one 639809-51-1P, 1-tert-Butyl-3,3-diethyl-5,5-dimethyl4-[1-[4-(4-methylpiperazin-1-ylcarbonyl)phenyl]ethoxy]piperazin-2-one 639809-53-3P, 2-Chloro-N-(3-dimethylaminopropyl)propionamide 639809-54-4P, 2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-56-6P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-58-8P, Diethyl [1-[tert-butyl-[1-(3-dimethylaminopropylcarbamoyl)ethoxy]amino]-2,2-dimethylpropyl]phosphonate 639809-60-2P, 2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-one O-(3-dimethylaminopropyl) oxime 639809-63-5P, Bis[2,6-diethyl-1-[1-(3-dimethylaminopropylcarbamoyl)ethoxy]-2,3,6-trimethylpiperidin-4-yl] terephthalate 639809-65-7P,

N-(3-Dimethylaminopropyl)-2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionamide 639809-67-9P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)-2-methylpropionamide 639809-68-0P, 2-Bromo-N-(3-dimethylaminopropyl)-2-methylpropionamide 639809-72-6P, 3-Bromopropyl 2-bromopropionate 639809-73-7P

(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 74-88-4, Methyl iodide, reactions 74-96-4, Ethyl bromide 100-44-7, Benzyl chloride, reactions 109-01-3, N-Methylpiperazine 109-54-6, 3-Dimethylaminopropyl chloride 109-55-7, 3-Dimethylamino-1-propylamine 121-44-8, Triethylamine, reactions 627-18-9 998-40-3, Tributylphosphine 1592-20-7, 4-Chloromethylstyrene 2226-96-2, 4-Hydroxy-TEMPO 17639-93-9, Methyl 2-chloropropionate 20769-85-1, 2-Bromo-2-methylpropionyl bromide 61745-37-7, 2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidine 1-N-oxyl 61746-17-6, 2,6-Diethyl-2,3,6-trimethylpiperidine 1-N-oxyl 264279-93-8, 1-tert-Butyl-3,3-diethyl-5,5-dimethylpiperazin-2-one 4-N-oxyl 319458-08-7, 4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoic acid 478697-26-6 639809-62-4

(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 639809-48-6P, [4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzyl]triethylammonium chloride 639809-50-0P, 4-[4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoyl]-1,1-dimethylpiperazin-1-ium iodide 639809-52-2P, [3-[2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide 639809-55-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide 639809-57-7P 639809-59-9P, [3-[2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-ylideneaminooxy]propyl]dimethylethylammonium bromide 639809-61-3P, Bis[[3-[2-(2,6-diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide] terephthalate 639809-64-6P, Ethyl[3-[2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium bromide 639809-66-8P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylethylammonium bromide 639809-69-1P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylammonium chloride 639809-70-4P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium chloride 639809-71-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionyloxy]propyl]tributylphosphonium bromide

(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 9003-49-0P, Poly(butyl acrylate) 9003-53-6P, Polystyrene

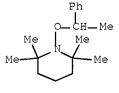
(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 1318-00-9, Vermiculite 1318-74-7, Kaolinite, uses 1318-93-0D, Montmorillonite, derivs. 1319-41-1, Saponite 12172-85-9, Beidellite 12173-47-6, Optigel SH 12174-06-0,

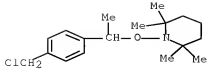
Nontronite (Fe2(Si3.67Al0.33)Na0.33(OH)2O10.xH2O) 12244-16-5, Endellite 12417-86-6, Stevensite 565450-32-0, Nanofil EXM588 (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

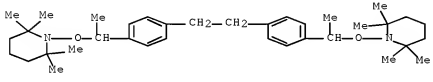
L41 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:583946 HCAPLUS Full-text
DOCUMENT NUMBER: 139:246241
TITLE: An improved catalytic method for alkoxyamine synthesis - functionalized and biradical initiators for nitroxide-mediated radical polymerization
AUTHOR(S): Bothe, Marc; Schmidt-Naake, Gudrun
CORPORATE SOURCE: Institut fuer Technische Chemie, Technische Universitaet Clausthal, Clausthal-Zellerfeld, 38678, Germany
SOURCE: Macromolecular Rapid Communications (2003), 24(10), 609-613
CODEN: MRCOE3; ISSN: 1022-1336
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Jul 2003
AB Mn(salen)Cl [(N,N'-disalicylidene-1,2-ethanediamino)manganese chloride] was applied as a low-cost catalyst for the formation of alkoxyamines from nitroxides and substituted styrenes. These "unimol. initiators" for nitroxide-mediated radical polymerization (NMRP) were synthesized using 2,2,6,6-tetramethyl-1-piperidine-1-oxyl and 2,2,5-trimethyl-4-phenyl-3-azahexane-3-oxyl. Functionalized alkoxyamines were obtained from 4-vinylbenzyl chloride and 4-vinylbenzyl alc. The divinyl compound 1,2-bis(4-vinylphenyl)ethane was converted to an alkoxyamine monomer and to bisaminooxy compds., which can be used as "biradical initiators" for NMRP.
IT 154554-67-3P 212132-38-2P 596135-22-7P
(improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)
RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



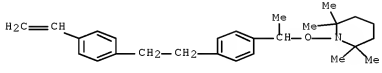
RN 212132-38-2 HCAPLUS
CN Piperidine, 1-[1-[4-(chloromethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



RN 596135-22-7 HCAPLUS
CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT 596135-23-8P
(monomer; improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)
RN 596135-23-8 HCAPLUS
CN Piperidine, 1-[1-[4-[2-(4-ethenylphenyl)ethyl]phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 154554-67-3P 212132-38-2P 227000-59-1P
227000-85-3P 433266-98-9P 596135-22-7P 596135-24-9P
(improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)
IT 596135-23-8P
(monomer; improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:383971 HCAPLUS Full-text
DOCUMENT NUMBER: 139:117728
TITLE: Synthesis and reactivity of functionalized

alkoxyamine initiators for nitroxide-mediated radical polymerization of styrene

AUTHOR(S): Li, Irene Q.; Knauss, Daniel M.; Priddy, Duane B.; Howell, Bob A.

CORPORATE SOURCE: Department of Chemistry and Geochemistry, Colorado School of Mines, Golden, CO, 80401, USA

SOURCE: Polymer International (2003), 52(5), 805-812
CODEN: PLYIEI; ISSN: 0959-8103

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

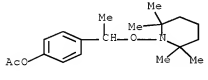
ED Entered STN: 20 May 2003

AB The synthesis and examination of different functionalized (2,2,6,6-tetramethyl-1-piperidinyloxy free radical) TEMPO-containing alkoxyamine initiators for nitroxide-mediated radical polymerization of styrene are reported. Initiators with ester and carbonate functional groups were synthesized by a low-temperature radical-abstraction reaction of the functionalized ethylbenzene in the presence of TEMPO to introduce the functional groups onto the initiating chain-end of polystyrene. An initiator with two alkoxyamine groups sym. located at each end of a carbonate bond was also synthesized and used for nitroxide-mediated styrene polymerization Styrene polymerization using these initiators followed first-order kinetics up to approx. 60 min at 140° or 30% monomer conversion. Alkoxyamines bearing an acetoxy or tert-butylcarbonate group at the p-position of 1-(2,2,6,6-tetramethyl- 1-piperidinyloxy)ethylbenzene behave in a similar way to the unfunctionalized initiator. With an initiator containing two alkoxyamine groups, the resulting polymer mol. weight was twice that of the polymer obtained from initiators with only one alkoxyamine group, as expected from propagation from both chain-ends. Upon hydrolysis of the carbonate bond, equivalent polymer chain growth occurred from each alkoxyamine site in the difunctional initiator.

IT 213699-59-3P 224824-56-0P 562102-19-6P
562102-23-2P
(synthesis of TEMPO-containing alkoxyamine initiators for radical polymerization of styrene)

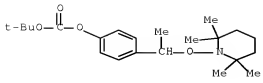
RN 213699-59-3 HCAPLUS

CN Phenol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-, acetate (ester) (9CI) (CA INDEX NAME)

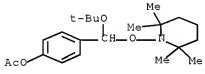


RN 224824-56-0 HCAPLUS

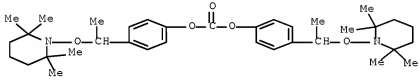
CN Carbonic acid, 1,1-dimethylethyl 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl ester (9CI) (CA INDEX NAME)



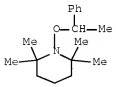
RN 562102-19-6 HCAPLUS
CN Phenol, 4-[(1,1-dimethylethoxy)[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]methyl]-, acetate (ester) (9CI) (CA INDEX NAME)



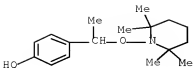
RN 562102-23-2 HCAPLUS
CN Phenol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-, carbonate (2:1) (ester) (9CI) (CA INDEX NAME)



IT 154554-67-3P 562102-22-1P
(synthesis of TEMPO-containing alkoxyamine initiators for radical polymerization of styrene)
RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 562102-22-1 HCAPLUS
CN Phenol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



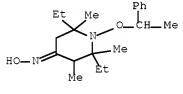
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 213699-59-3P 224824-56-0P 562102-19-6P
562102-23-2P
(synthesis of TEMPO-containing alkoxyamine initiators for radical polymerization of styrene)
IT 3245-23-6P, 4-(Acetoxy)ethylbenzene 154554-67-3P
562102-22-1P
(synthesis of TEMPO-containing alkoxyamine initiators for radical polymerization of styrene)
REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 19 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:221728 HCAPLUS Full-text
DOCUMENT NUMBER: 138:238564
TITLE: Preparation of hydroxy-vinyl-aromatic polymers or copolymers by anionic or controlled radical polymerization
INVENTOR(S): Nesvadba, Peter; Kunimoto, Kazuhiko
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022895	A1	20030320	WO 2002-EP9782	20020902
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2457946	A1	20030320	CA 2002-2457946	20020902
AU 2002342631	A1	20030324	AU 2002-342631	20020902
EP 1436337	A1	20040714	EP 2002-779289	20020902
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002012335	A	20040921	BR 2002-12335	20020902
CN 1553922	A	20041208	CN 2002-817640	20020902
JP 2005502744	T	20050127	JP 2003-526966	20020902
TW 593345	B	20040621	TW 2002-91120495	20020909

US 20040242813	A1	20041202	US 2004-489045		20040306
MX 2004PA02287	A	20040629	MX 2004-PA2287		20040310
IN 2004CN00715	A	20060113	IN 2004-CN715		20040405
PRIORITY APPLN. INFO.:			EP 2001-810868	A	20010910
			WO 2002-EP9782	W	20020902

OTHER SOURCE(S): MARPAT 138:238564
ED Entered STN: 21 Mar 2003
AB The hydroxy-vinyl-aromatic polymers in particular 4-hydroxystyrene polymers or copolymers are made by anionic or controlled radical polymerization of the resp. monomer, where the hydroxy functionality is blocked with a protective group which is subsequently removed in a hydrogenation process. The resulting (co)polymers have a narrow polydispersity and are useful for manufacturing photoresists. Thus, 4-benzyloxystyrene (450 mmol) and 2,6-diethyl-2,3,6-trimethyl-1-(1- phenylethoxy)piperidin-4-one oxime (4.50 mmol) are heated to 130° and stirred for 6 h under Ar, cooled down to room temperature, dissolved in CH2Cl2 (120 mL), and precipitated in MeOH, giving polymer with Mn 9787, Mw/Mn 1.17, which was hydrogenated.
IT 478697-26-6P
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)
RN 478697-26-6 HCAPLUS
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime (CA INDEX NAME)



IC ICM C08F012-24
ICS C08F004-04; C08F004-28
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 478697-26-6P
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 20 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:42249 HCAPLUS Full-text
DOCUMENT NUMBER: 138:107153
TITLE: Multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators
INVENTOR(S): Kramer, Andreas; Muehlebach, Andreas; Nesvadba, Peter; Zink, Marie-Odile; Hintermann, Tobias
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

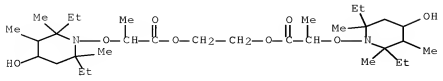
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004471	A1	20030116	WO 2002-EP7131 <--	20020627
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2450232	A1	20030116	CA 2002-2450232 <--	20020627
AU 2002325279	A1	20030121	AU 2002-325279 <--	20020627
EP 1417171	A1	20040512	EP 2002-758282 <--	20020627
EP 1417171	B1	20071121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1522247	A	20040818	CN 2002-813456 <--	20020627
JP 2005502622	T	20050127	JP 2003-510639 <--	20020627
MX 2003PA11833	A	20040326	MX 2003-PA11833 <--	20031218
US 20040167303	A1	20040826	US 2003-482546 <--	20031230
US 6936670	B2	20050830		

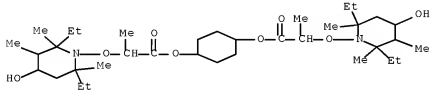
PRIORITY APPLN. INFO.: EP 2001-810664 A 20010705
<--
WO 2002-EP7131 W 20020627
<--

OTHER SOURCE(S): MARPAT 138:107153
ED Entered STN: 17 Jan 2003
AB The instant invention relates to multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators. Further subjects of the invention are a polymerizable composition comprising an ethylenically unsatd. monomer (e.g., styrene) or oligomer and the alkoxyamine compound as well as a process for polymerization and a process for preparation of the compds.
IT 485844-67-5P 485844-69-7P 485844-70-0P
485844-71-1P 485844-72-2P 485844-74-4P
485844-75-5P 485844-77-7P 485844-78-8P
485844-79-9P 485844-80-2P 485844-81-3P
(multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators)
RN 485844-67-5 HCAPLUS
CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-

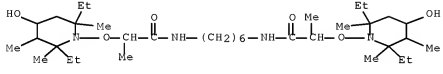
piperidinyl)oxy]-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



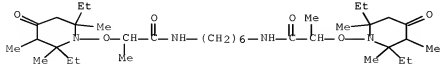
RN 485844-69-7 HCAPLUS
CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 1,4-cyclohexanediyl ester (9CI) (CA INDEX NAME)



RN 485844-70-0 HCAPLUS
CN Propanamide, N,N'-1,6-hexanediylbis[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]- (CA INDEX NAME)

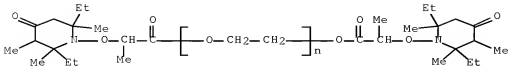


RN 485844-71-1 HCAPLUS
CN Propanamide, N,N'-1,6-hexanediylbis[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]- (CA INDEX NAME)



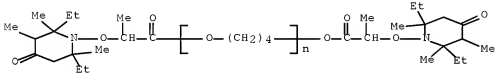
RN 485844-72-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]-ω-[2-[(2,6-diethyl-2,3,6-

trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]- (9CI) (CA INDEX NAME)



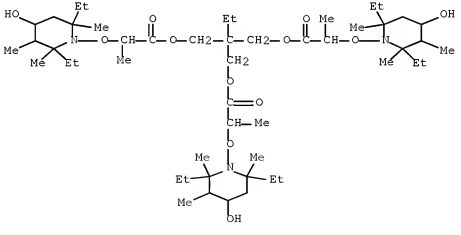
RN 485844-74-4 HCAPLUS

CN Poly(oxy-1,4-butanediyl), α-[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]-ω-[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]- (9CI) (CA INDEX NAME)



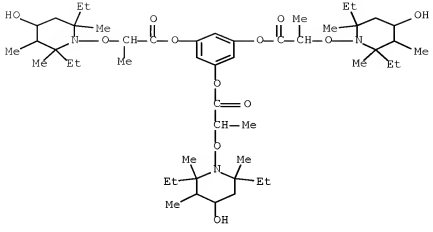
RN 485844-75-5 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 2-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]methyl]-2-ethyl-1,3-propanediyl ester (9CI) (CA INDEX NAME)



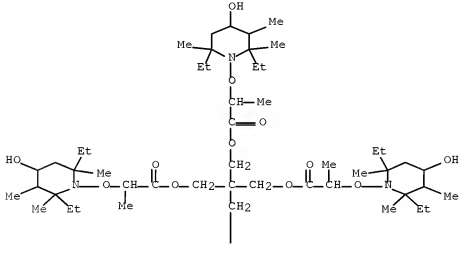
RN 485844-77-7 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 1,3,5-benzenetriyl ester (9CI) (CA INDEX NAME)



RN 485844-78-8 HCAPLUS
CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 2,2-bis[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]methyl]-1,3-propanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



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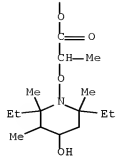
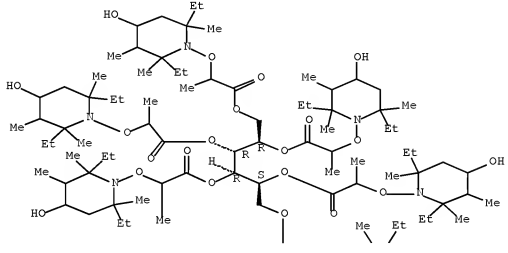


RN 485844-79-9 HCAPLUS
CN D-Glucitol, hexakis[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]propanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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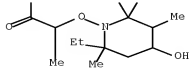
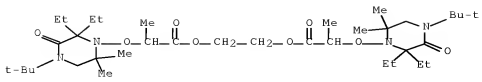
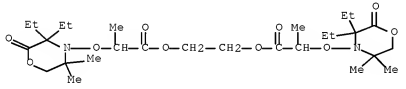


RN 485844-80-2 HCAPLUS
CN Propanoic acid, 2-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



RN 485844-81-3 HCAPLUS
CN Propanoic acid, 2-[(3,3-diethyl-5,5-dimethyl-2-oxo-4-morpholinyl)oxy]-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



IC ICM C07D211-94
ICS C08F004-00; C08F002-38; C08F012-08; C08F020-18
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 485844-67-5P 485844-69-7P 485844-70-0P
485844-71-1P 485844-72-2P 485844-74-4P
485844-75-5P 485844-77-7P 485844-78-8P
485844-79-9P 485844-80-2P 485844-81-3P
(multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 21 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:964328 HCAPLUS Full-text
DOCUMENT NUMBER: 138:39710
TITLE: N-alkoxy 4-imino piperidine polymerization regulators and their use in free radical-mediated polymerization of vinyl monomers to low dispersity polymers
INVENTOR(S): Nesvadba, Peter; Hintermann, Tobias; Kramer, Andreas; Zink, Marie-Odile; Bugnon, Lucienne
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002100831	A1	20021219	WO 2002-EP6108		20020604
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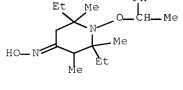
CA 2443718	A1	20021219	CA 2002-2443718		20020604
AU 2002328806	A1	20021223	AU 2002-328806		20020604
EP 1397349	A1	20040317	EP 2002-764577		20020604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
CN 1514827	A	20040721	CN 2002-811633		20020604
JP 2005502601	T	20050127	JP 2003-503600		20020604
MX 2003PA10132	A	20040310	MX 2003-PA10132		20031106
US 20040176553	A1	20040909	US 2003-480188		20031209
US 7199245	B2	20070403			
PRIORITY APPLN. INFO.:			EP 2001-810567	A	20010613
			EP 2001-811154	A	20011128
			WO 2002-EP6108	W	20020604

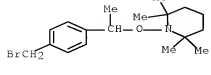
OTHER SOURCE(S): MARPAT 138:39710
ED Entered STN: 20 Dec 2002
AB The present invention relates to selected 4-imino-N-alkoxy-polyalkyl-piperidine compds. preparation, a polymerizable composition comprising a) at least one ethylenically unsatd. monomer and b) a 4-imino-N-alkoxy- polyalkyl-piperidine compound Further aspects of the present invention are a process for polymerizing ethylenically unsatd. monomers, and the use of 4-imino-N-alkoxy-polyalkyl-piperidine compds. for controlled polymerization The intermediate N-oxyl derivs., a composition of the N-oxyl derivs. with ethylenically unsatd. monomers and a free radical initiator, as well as a process for polymerization are also subjects of the present invention.
IT 478697-26-6P
(preparation of N-alkoxy 4-imino piperidine polymerization regulators and their
use in free radical-mediated vinyl monomer polymerization to low dispersity polymers)
RN 478697-26-6 HCAPLUS
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime (CA INDEX NAME)



IC ICM C07D211-94

ICS C08F004-00
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 478697-26-6P 478697-51-7P
(preparation of N-alkoxy 4-imino piperidine polymerization regulators and their
use in free radical-mediated vinyl monomer polymerization to low dispersity polymers)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 22 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:868581 HCAPLUS Full-text
DOCUMENT NUMBER: 138:137635
TITLE: Synthesis of six-arm star polymer by nitroxide-mediated "living" radical polymerization
AUTHOR(S): Miura, Yozo; Yoshida, Yuji
CORPORATE SOURCE: Department of Applied Chemistry, Graduate School of Engineering, Osaka City University, Osaka, 558-8585, Japan
SOURCE: Polymer Journal (Tokyo, Japan) (2002), 34(10), 748-754
CODEN: POLJB8; ISSN: 0032-3896
PUBLISHER: Society of Polymer Science, Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Nov 2002
AB A dendritic multifunctional initiator with six TEMPO-based alkoxyamine moieties was prepared from 4-bromoethylbenzene in seven steps. Six-arm star polymers were synthesized by the radical bulk polymerization of styrene using the dendritic alkoxyamine as an initiator. The styrene polymns. were carried out at 120° using the dendritic alkoxyamine concns. of 5.0, 12.8 and 18.8 mmol/L. When the alkoxyamine concentration was 5.0 mmol/L, the polydispersity of the resulting star polymers increased with conversion, and the polydispersity of the star polymer at 72% conversion was 1.59. When the alkoxyamine concns. were 12.8 and 18.8 mmol/L, the polymerization was well controlled to give star polymers with low polydispersity even at high conversions. Mol. weight of the star polymers determined by NMR significantly differed from GPC and light scattering detns. and was attributed to the unique structure of the polymers. The six-arm polystyrene synthesis showed features of the living polymerization with some side reactions at high monomer conversion. The deviations from the living polymerization character were discussed on the basis of GPC elution curves of the star polymers.
IT 492446-76-1P 492446-77-2P 492446-78-3P
(in synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)
RN 492446-76-1 HCAPLUS
CN Piperidine, 1-[1-[4-(bromomethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



RN 492446-77-2 HCAPLUS
CN Benzenemethanol, 3,5-bis[[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl]methoxy]- (CA INDEX NAME)

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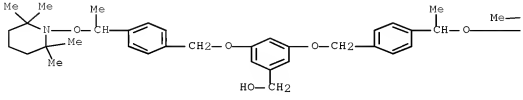

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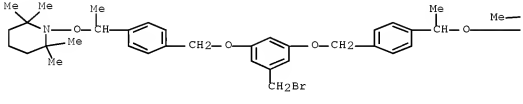
RN 492446-78-3 HCAPLUS
CN Piperidine, 1,1'-[[5-(bromomethyl)-1,3-phenylene]bis(oxymethylene-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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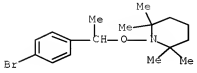
IT 173625-97-3P 209556-23-2P 209556-24-3P

(in synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)

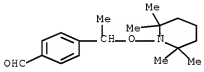
RN 178625-97-3 HCAPLUS

CN Piperidine, 1-[1-(4-bromophenyl)ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



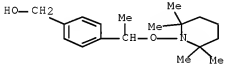
RN 209550-23-2 HCAPLUS

CN Benzaldehyde, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



RN 209550-24-3 HCAPLUS

CN Benzenemethanol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



IT 492446-79-4P

(synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)

RN 492446-79-4 HCAPLUS

CN Piperidine, 1,1',1'',1''',1'''',1'''''-[1,3,5-benzenetriyltris[oxymethylene-5,1,3-benzenetriylbis(oxymethylene-4,1-phenyleneethylideneoxy)]]hexakis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

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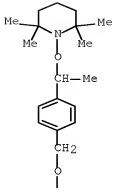

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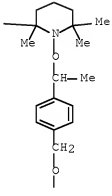

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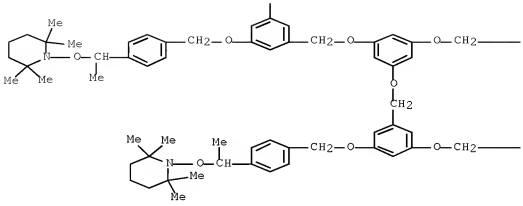

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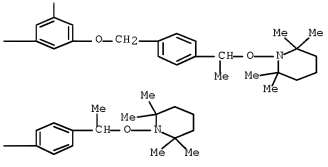

CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67
IT 492446-76-1P 492446-77-2P 492446-78-3P
(in synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)
IT 178625-97-3P 209550-23-2P 209550-24-3P
(in synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)
IT 492446-79-4P
(synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 23 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:626615 HCAPLUS Full-text
DOCUMENT NUMBER: 137:338264
TITLE: Synthesis of end-functionalized polymer with cyclodextrin based on tempo-mediated radical polymerization
AUTHOR(S): Narumi, Atsushi; Miura, Yutaka; Satoh, Toshifumi; Kaga, Harumi; Kakuchi, Toyoji

CORPORATE SOURCE: Div. Molecular Chem., Grad. Sch. Eng., Hokkaido Univ., Sapporo, 060-8628, Japan
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 279-280
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
ED Entered STN: 20 Aug 2002

AB Polystyrene was end-functionalized with a cyclic oligosacchamide, cyclodextrin (CD). First, mono-6-[4-[1'-(2'',2'',6'',6''-tetramethyl- 1''-piperidinyloxy)ethyl]benzamido]-per-2,3,6-acetyl-β- cyclodextrin was prepared and was used as initiator to polymerize styrene. The resulting polymer was deacetylated. A reversed-type micelle using the polymer with the β-CD core was prepared

IT 474088-71-6P
(catalyst; in preparation of end-functionalized polymer with cyclodextrin based on tempo-mediated radical polymerization)

RN 474088-71-6 HCAPLUS

CN β-Cyclodextrin, 6A,6B,6C,6D,6E,6F-hexadeoxy-6A,6B,6C,6D,6E,6F-hexakis[[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]benzoyl]amino]-, 2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6G-pentadecaacetate (9CI) (CA INDEX NAME)

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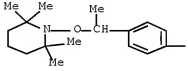

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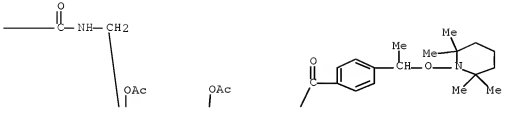

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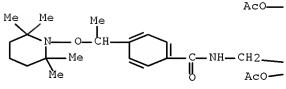

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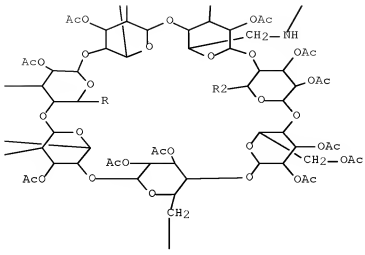

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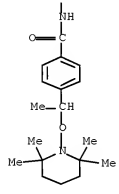

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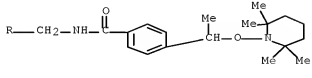
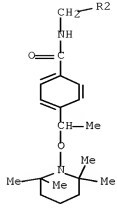
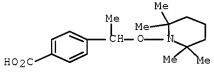




IT 433682-25-8
(in preparation of end-functionalized polymer with cyclodextrin based on tempo-mediated radical polymerization)
RN 433682-25-8 HCAPLUS
CN Benzoic acid, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 44
IT 474088-71-6P
(catalyst; in preparation of end-functionalized polymer with cyclodextrin based on tempo-mediated radical polymerization)
IT 108-24-7, Acetic anhydride 29390-67-8, 6-Amino-6-deoxy-β-cyclodextrin 433682-25-8
(in preparation of end-functionalized polymer with cyclodextrin based on tempo-mediated radical polymerization)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 24 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:466059 HCAPLUS Full-text
DOCUMENT NUMBER: 137:33695
TITLE: N-alkoxy-4,4-dioxy-polyalkyl-piperidine compounds, their corresponding N-oxides and controlled radical polymerization therewith
INVENTOR(S): Nesvadba, Peter; Zink, Marie-Odile; Wunderlich, Wiebke
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 87 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048205	A1	20020620	WO 2001-EP13072 <--	20011112
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 557305	B	20031011	TW 2001-90127737 <--	20011108
CA 2431393	A1	20020620	CA 2001-2431393 <--	20011112
AU 2002024841	A	20020624	AU 2002-24841 <--	20011112
EP 1343827	A1	20030917	EP 2001-994649 <--	20011112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004526683	T	20040902	JP 2002-549736 <--	20011112
US 20040082742	A1	20040429	US 2003-450229 <--	20030611
US 20060149011	A1	20060706	US 2006-364537 <--	20060228
US 7288613	B2	20071030		
US 20080015276	A1	20080117	US 2007-903093 <--	20070920

PRIORITY APPLN. INFO.:			
EP 2000-811190 <--	A	20001214	
WO 2001-EP13072 <--	W	20011112	
US 2003-450229 <--	A1	20030611	
US 2006-364537	A3	20060228	

OTHER SOURCE(S): MARPAT 137:33695
ED Entered STN: 21 Jun 2002
AB Controlled (block) polymerization of unsatd. monomers is carried out in the presence of selected 1-alkoxy-2,2,6,6-tetramethylpiperidine, 1-alkoxy-2,2-diethyl-6,6-dimethylpiperidine, and/or 1-alkoxy-2,6-diethyl-2,3,6-trimethylpiperidine derivs. which are substituted in the 4-position by two oxygen atoms forming an open chain or cyclic ketal structure to prepare polymers with low polydispersity. Thus, polymerization of 117 mmol Bu acrylate in the presence of 1.78 mmol 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxa- 8-aza-spiro[4.5]decane at 145° for 5 h gave 74% of a polymer with Mw 8280, Mn 6460, and Mw/Mn 1.28.
IT 437744-49-5 437744-52-0 437744-55-3
437744-58-6 437744-61-1 437744-64-4

437744-67-7 437744-71-3 437744-75-7
437744-79-1 437744-83-7 437744-87-1
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437745-03-4 437745-14-7 437745-22-7
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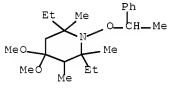
437748-09-9 437748-12-4 437748-15-7
437748-18-0 437748-21-5 437748-24-8
437748-27-1 437748-30-6

(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)

RN 437744-49-5 HCAPLUS
CN Piperidine, 2,6-diethyl-4,4-dimethoxy-2,3,6-trimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



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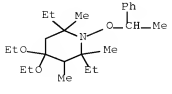

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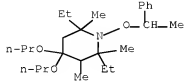

RN 437744-58-6 HCAPLUS
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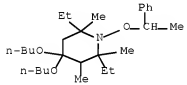
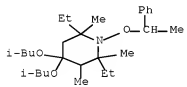


RN 437744-61-1 HCAPLUS
CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-4,4-bis(2-methylpropoxy)-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 437744-64-4 HCAPLUS
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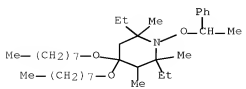
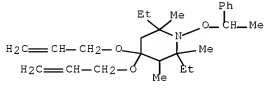


RN 437744-67-7 HCAPLUS
CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



RN 437744-71-3 HCAPLUS
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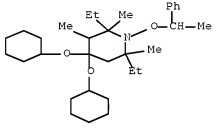

RN 437744-75-7 HCAPLUS
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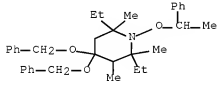
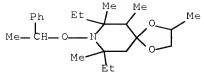


RN 437744-79-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2,6,7,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437744-83-7 HCAPLUS
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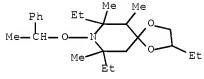
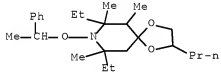
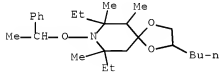


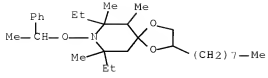
RN 437744-87-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-2-propyl- (CA INDEX NAME)



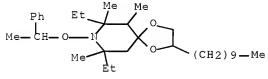
RN 437744-91-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-butyl-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



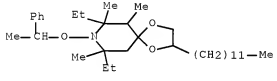
RN 437744-95-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-2-octyl-8-(1-phenylethoxy)- (CA INDEX NAME)



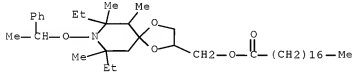
RN 437744-99-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-decyl-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



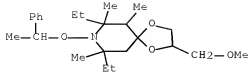
RN 437745-03-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-dodecyl-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



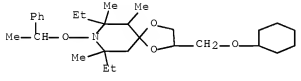
RN 437745-14-7 HCAPLUS
CN Octadecanoic acid, [7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl ester (CA INDEX NAME)



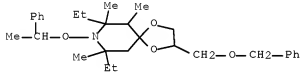
RN 437745-22-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2-(methoxymethyl)-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437745-26-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)

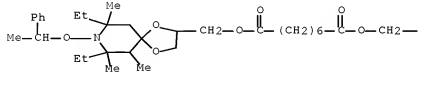


RN 437745-30-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-2-[(phenylmethoxy)methyl]- (CA INDEX NAME)

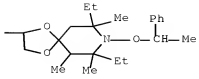


RN 437745-34-1 HCAPLUS
CN Octanedioic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

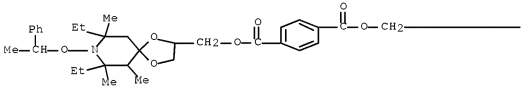


PAGE 1-B

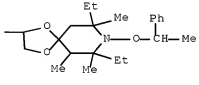


RN 437745-38-5 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

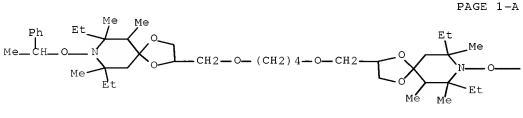


PAGE 1-B

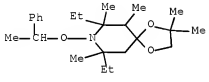


RN 437745-42-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (9CI) (CA INDEX NAME)

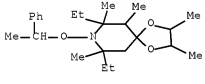
PAGE 1-A



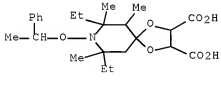
RN 437745-46-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2,2,6,7,9-pentamethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



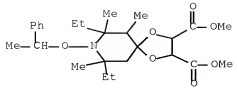
RN 437745-50-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2,3,6,7,9-pentamethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



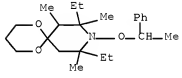
RN 437745-70-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



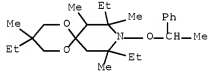
RN 437745-74-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-, dimethyl ester (9CI) (CA INDEX NAME)



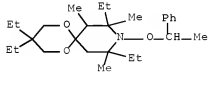
RN 437745-78-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



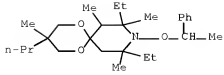
RN 437745-86-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,10-triethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



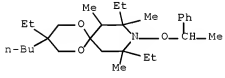
RN 437745-90-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,10-tetraethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



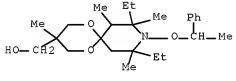
RN 437745-94-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-3-propyl- (CA INDEX NAME)



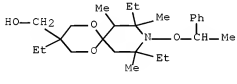
RN 437745-98-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-butyl-3,8,10-triethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



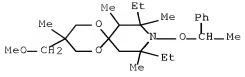
RN 437746-06-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



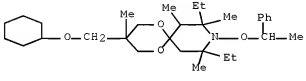
RN 437746-10-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,10-triethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



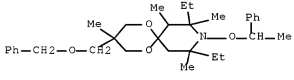
RN 437746-14-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3-(methoxymethyl)-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



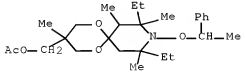
RN 437746-18-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



RN 437746-22-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-3-[(phenylmethoxy)methyl]- (CA INDEX NAME)



RN 437746-26-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-, acetate (ester) (9CI) (CA INDEX NAME)



RN 437746-30-0 HCAPLUS
CN Octanedioic acid, bis[[8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-1,5-dioxa-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

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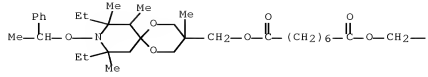

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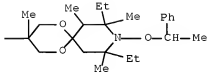

RN 437746-34-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,10-triethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (9CI) (CA INDEX NAME)

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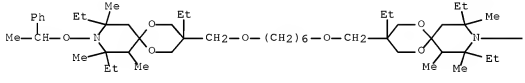

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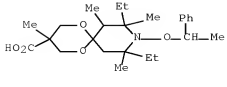
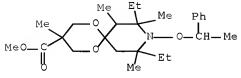
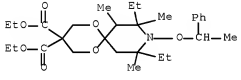
RN 437746-38-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



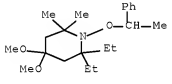
RN 437746-41-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-, methyl ester (CA INDEX NAME)



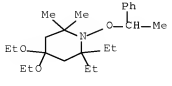
RN 437746-44-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,10-diethyl-7,8,10-trimethyl-9-(1-phenylethoxy)-, diethyl ester (9CI) (CA INDEX NAME)



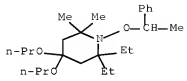
RN 437746-56-0 HCAPLUS
CN Piperidine, 2,2-diethyl-4,4-dimethoxy-6,6-dimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



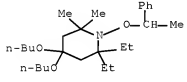
RN 437746-60-6 HCAPLUS
CN Piperidine, 4,4-diethoxy-2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



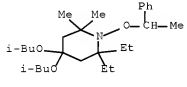
RN 437746-64-0 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-4,4-dipropoxy- (CA INDEX NAME)



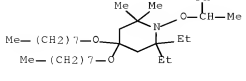
RN 437746-68-4 HCAPLUS
CN Piperidine, 4,4-dibutoxy-2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



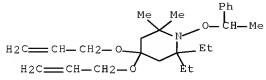
RN 437746-72-0 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(2-methylpropoxy)-1-(1-phenylethoxy)- (CA INDEX NAME)



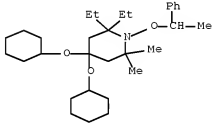
RN 437746-76-4 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(octyloxy)-1-(1-phenylethoxy)- (CA INDEX NAME)



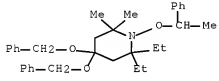
RN 437746-80-0 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



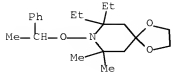
RN 437746-84-4 HCAPLUS
CN Piperidine, 4,4-bis(cyclohexyloxy)-2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



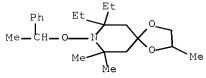
RN 437746-88-8 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-4,4-bis(phenylmethoxy)- (CA INDEX NAME)



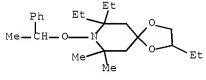
RN 437746-92-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



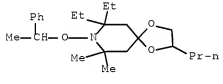
RN 437746-96-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2,9,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



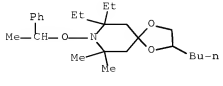
RN 437747-00-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,7,7-triethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437747-03-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-2-propyl- (CA INDEX NAME)

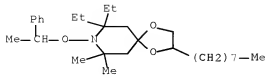


RN 437747-07-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-butyl-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)

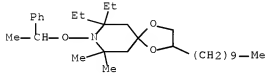


RN 437747-11-0 HCAPLUS

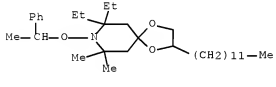
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-2-octyl-8-(1-phenylethoxy)- (CA INDEX NAME)



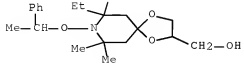
RN 437747-15-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-decyl-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



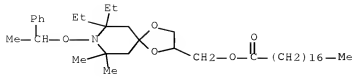
RN 437747-19-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-dodecyl-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



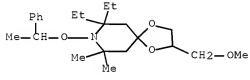
RN 437747-23-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



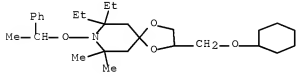
RN 437747-31-4 HCAPLUS
CN Octadecanoic acid, [7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl ester (CA INDEX NAME)



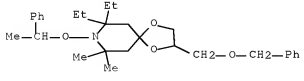
RN 437747-39-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2-(methoxymethyl)-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437747-42-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437747-45-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-2-[(phenylmethoxy)methyl]- (CA INDEX NAME)



RN 437747-48-3 HCAPLUS
CN Octanedioic acid, bis[[7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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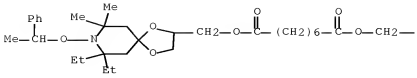

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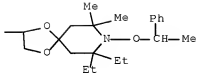

RN 437747-51-8 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[[7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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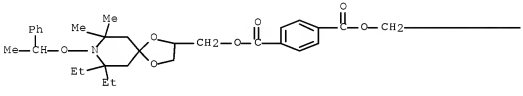

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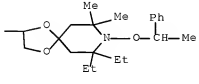

RN 437747-54-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (9CI) (CA INDEX NAME)

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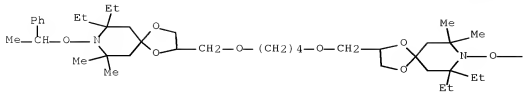

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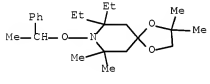
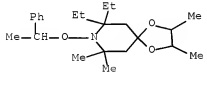
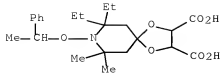
RN 437747-57-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2,2,9,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



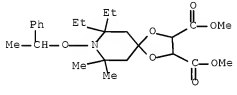
RN 437747-61-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2,3,9,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



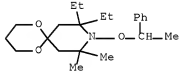
RN 437747-70-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



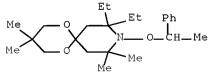
RN 437747-74-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-, dimethyl ester (9CI) (CA INDEX NAME)



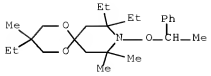
RN 437747-77-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



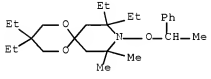
RN 437747-81-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,3,10,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



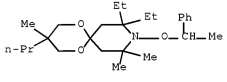
RN 437747-84-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,8-triethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



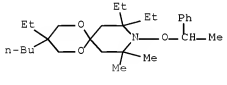
RN 437747-87-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8-tetraethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



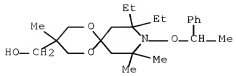
RN 437747-90-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-3-propyl- (CA INDEX NAME)



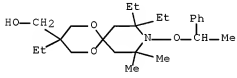
RN 437747-94-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-butyl-3,8,8-triethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



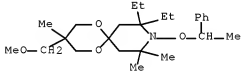
RN 437748-00-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



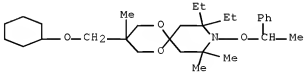
RN 437748-03-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,8-triethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



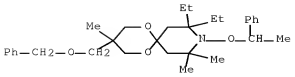
RN 437748-06-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3-(methoxymethyl)-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



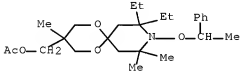
RN 437748-09-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



RN 437748-12-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-3-[(phenylmethoxy)methyl]- (CA INDEX NAME)



RN 437748-15-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-, acetate (ester) (9CI) (CA INDEX NAME)



RN 437748-18-0 HCAPLUS
CN Octanedioic acid, bis[[8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-1,5-dioxa-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

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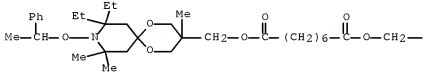

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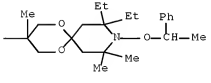

RN 437748-21-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,8-triethyl-10,10-dimethyl-9-(1-phenylethoxy)- (9CI) (CA INDEX NAME)

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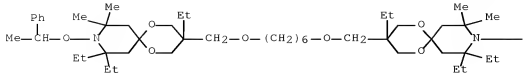

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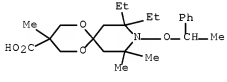
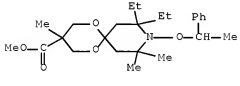
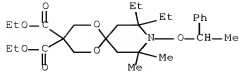
RN 437748-24-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



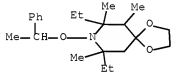
RN 437748-27-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-, methyl ester (CA INDEX NAME)



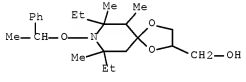
RN 437748-30-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8-diethyl-10,10-dimethyl-9-(1-phenylethoxy)-, diethyl ester (9CI) (CA INDEX NAME)



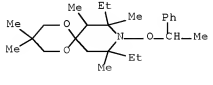
IT 437744-12-2P 437744-19-9P 437744-23-5P
(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)
RN 437744-12-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437744-19-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)

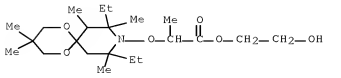


RN 437744-23-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3,3,7,8,10-pentamethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



IT 437744-42-8P
(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)
RN 437744-42-8 HCAPLUS

CN Propanoic acid, 2-[(8,10-diethyl-3,3,7,8,10-pentamethyl-1,5-dioxa-9-azaspiro[5.5]undec-9-yl)oxy]-, 2-hydroxyethyl ester (CA INDEX NAME)



IC ICM C08F004-00
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 28, 67
IT 437744-49-5 437744-52-0 437744-55-3
437744-58-6 437744-61-1 437744-64-4
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437745-46-5 437745-50-1 **437745-62-5** **437745-66-9**
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437748-50-0 **437748-53-3** **437748-56-6** **437748-59-9** **437748-62-4**
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437749-88-7 **437749-91-2** **437749-94-5** **437749-97-8** **437750-00-0**
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437751-21-8 437751-23-0 437751-25-2 437751-27-4 437751-28-5
437751-29-6
(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)

IT 376588-12-4P 376588-14-6P 376588-16-8P 437744-12-2P
437744-19-9P 437744-23-5P 437744-30-4P
437744-34-8P 437744-38-2P
(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)

IT 437744-42-8P
(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2002:465975 HCAPLUS Full-text
DOCUMENT NUMBER: 137:47610
TITLE: N-alkoxy-4,4-dioxy-polyalkyl-piperidine compounds with glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization
INVENTOR(S): Fuso, Francesco; Wunderlich, Wiebke; Kramer, Andreas; Fink, Jochen
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
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CODEN: PIXXD2
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LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048109	A2	20020620	WO 2001-EP13071 <--	20011112
WO 2002048109	A3	20020829		
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			WO 2001-EP13071 <--	W	20011112
			US 2003-450227 <--	A3	20030611

OTHER SOURCE(S): MARPAT 137:47610

ED Entered STN: 21 Jun 2002

AB Controlled (block) polymerization of unsatd. monomers is carried out in the presence of selected glycidyl- or carbonyl-functional N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides having an open chain or cyclic ketal structure to prepare polymers with low polydispersity. Thus, polymerization of Bu acrylate in the presence of 0.1 mol% 8,10-diethyl-3,3,7,8,10-pentamethyl-9-[1-(4-oxiranylmethoxy- phenyl)-ethoxy]-1,5-dioxa-9-aza-spiro[5.5]undecane at 130° for 6 h gave a polymer with Mw 72,870, Mn 57,120, and Mw/Mn 1.28.

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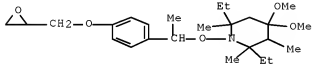
437994-63-3

(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

RN 437993-14-1 HCAPLUS
CN Piperidine, 2,6-diethyl-4,4-dimethoxy-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-15-2 HCAPLUS
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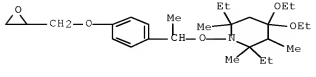

RN 437993-16-3 HCAPLUS
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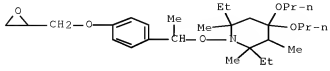
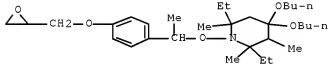
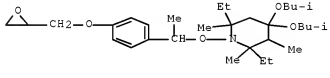


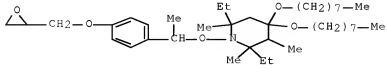
RN 437993-17-4 HCAPLUS
CN Piperidine, 4,4-dibutoxy-2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-18-5 HCAPLUS
CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-4,4-bis(2-methylpropoxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

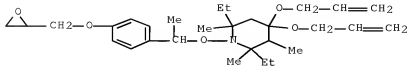


RN 437993-19-6 HCAPLUS
CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-4,4-bis(octyloxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

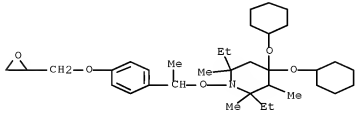


RN 437993-20-9 HCAPLUS
CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-[1-[4-

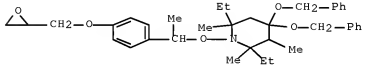
(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



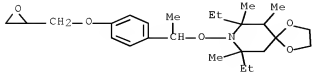
RN 437993-21-0 HCAPLUS
CN Piperidine, 4,4-bis(cyclohexyloxy)-2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



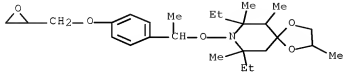
RN 437993-22-1 HCAPLUS
CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



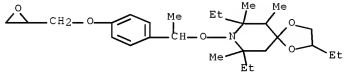
RN 437993-23-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



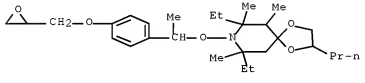
RN 437993-24-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2,6,7,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



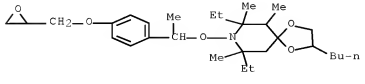
RN 437993-25-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,7,9-triethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-26-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-propyl- (9CI) (CA INDEX NAME)

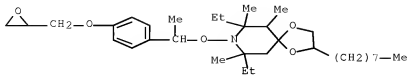


RN 437993-27-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-butyl-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

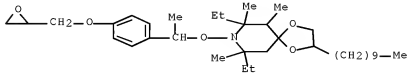


RN 437993-28-7 HCAPLUS

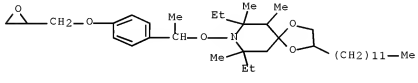
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-2-octyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



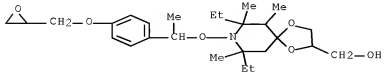
RN 437993-29-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-decyl-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-30-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-dodecyl-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

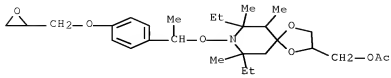


RN 437993-31-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

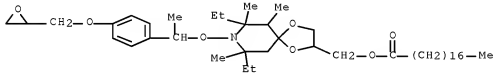


RN 437993-32-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-

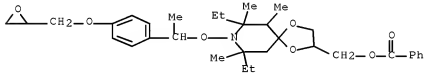
trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



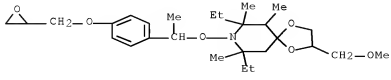
RN 437993-33-4 HCAPLUS
CN Octadecanoic acid, [7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl ester (9CI) (CA INDEX NAME)



RN 437993-34-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



RN 437993-35-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2-(methoxymethyl)-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



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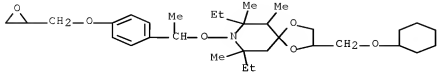
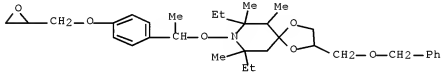
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-37-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



RN 437993-38-9 HCAPLUS
CN Octanedioic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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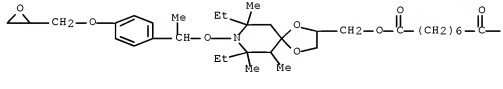

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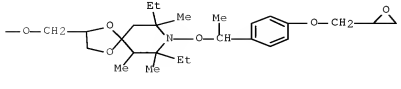

RN 437993-39-0 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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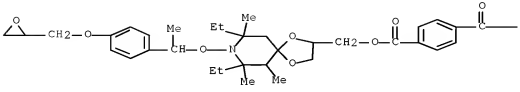

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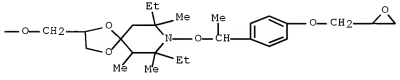

RN 437993-40-3 HCAPLUS

CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

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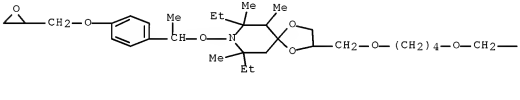

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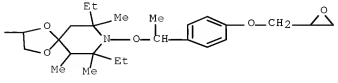
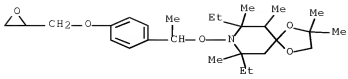
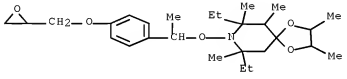


RN 437993-41-4 HCAPLUS

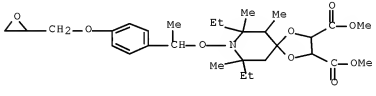
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2,2,6,7,9-pentamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



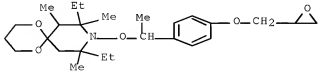
RN 437993-42-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,9-diethyl-2,3,6,7,9-pentamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-45-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, dimethyl ester (9CI) (CA INDEX NAME)

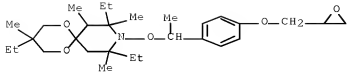


RN 437993-46-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

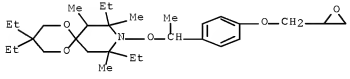


RN 437993-48-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,10-triethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX

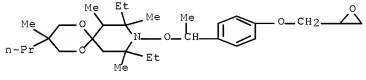
NAME)



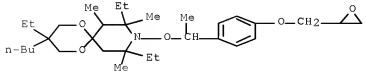
RN 437993-49-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,10-tetraethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-50-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-propyl- (9CI) (CA INDEX NAME)

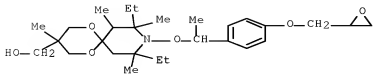


RN 437993-51-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-butyl-3,8,10-triethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

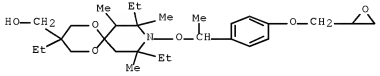


RN 437993-53-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-

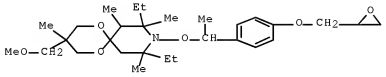
tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



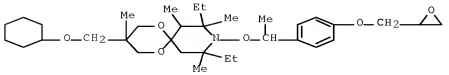
RN 437993-54-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,10-triethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



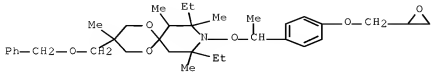
RN 437993-55-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3-(methoxymethyl)-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



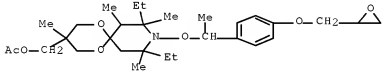
RN 437993-56-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-57-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



RN 437993-58-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



RN 437993-59-4 HCAPLUS
CN Octanedioic acid, bis[[8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,5-dioxa-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

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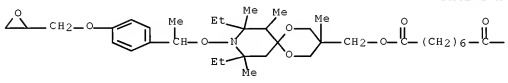

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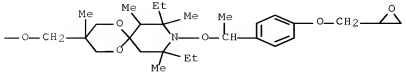

RN 437993-60-7 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,10-triethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

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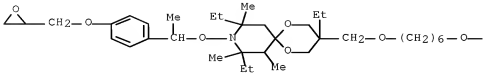

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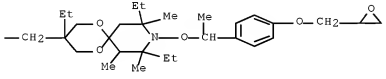
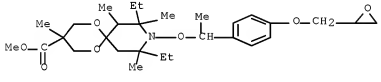
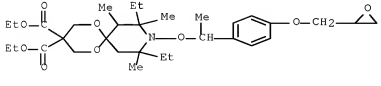


RN 437993-61-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

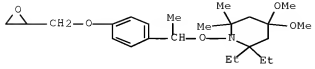


RN 437993-62-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,10-diethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, diethyl ester (9CI) (CA INDEX NAME)

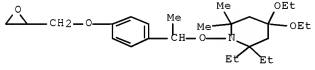


RN 437993-65-2 HCAPLUS
CN Piperidine, 2,2-diethyl-4,4-dimethoxy-6,6-dimethyl-1-[1-[4-

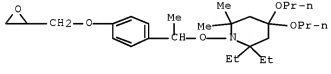
(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



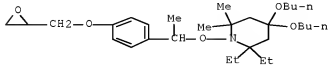
RN 437993-66-3 HCAPLUS
CN Piperidine, 4,4-diethoxy-2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



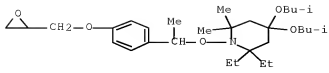
RN 437993-67-4 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-dipropoxy- (9CI) (CA INDEX NAME)



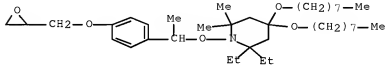
RN 437993-68-5 HCAPLUS
CN Piperidine, 4,4-dibutoxy-2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



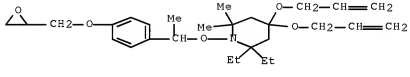
RN 437993-69-6 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(2-methylpropoxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



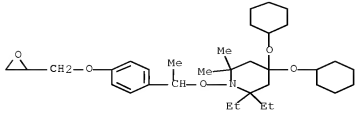
RN 437993-70-9 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(octyloxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-71-0 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)

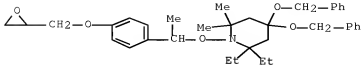


RN 437993-72-1 HCAPLUS
CN Piperidine, 4,4-bis(cyclohexyloxy)-2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

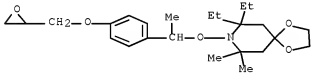


RN 437993-73-2 HCAPLUS
CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-[1-[4-

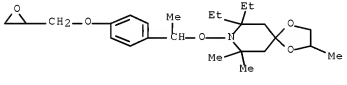
(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



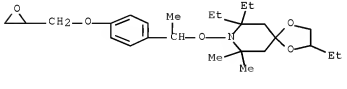
RN 437993-74-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



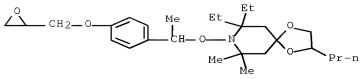
RN 437993-75-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2,9,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



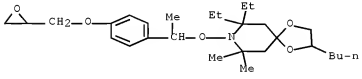
RN 437993-76-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,7,7-triethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



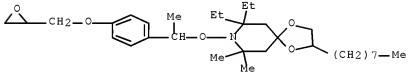
RN 437993-77-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-propyl- (9CI) (CA INDEX NAME)



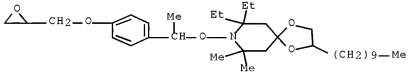
RN 437993-78-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-butyl-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



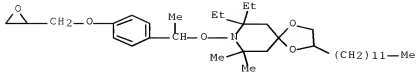
RN 437993-79-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-2-octyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



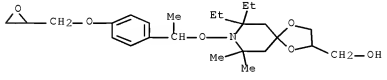
RN 437993-80-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-decyl-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



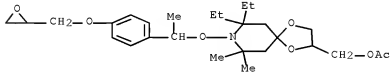
RN 437993-81-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-dodecyl-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



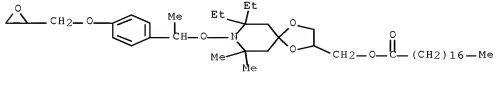
RN 437993-82-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



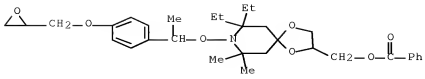
RN 437993-83-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



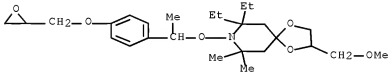
RN 437993-84-5 HCAPLUS
CN Octadecanoic acid, [7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl ester (9CI) (CA INDEX NAME)



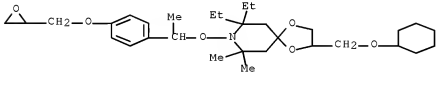
RN 437993-85-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



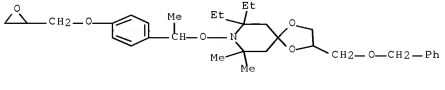
RN 437993-86-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2-(methoxymethyl)-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-87-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-88-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



RN 437993-89-0 HCAPLUS
CN Octanedioic acid, bis[[7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-

yl]methyl] ester (9CI) (CA INDEX NAME)

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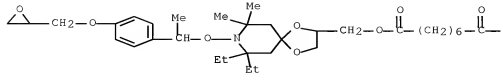

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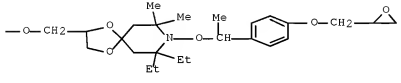

RN 437993-90-3 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[[7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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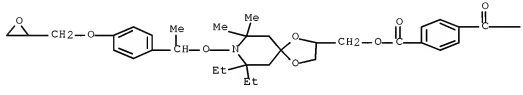

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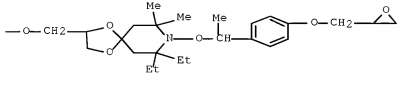

RN 437993-91-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

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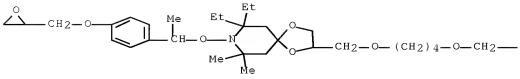

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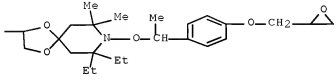
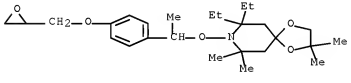
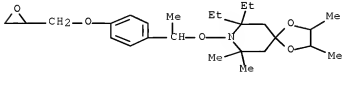


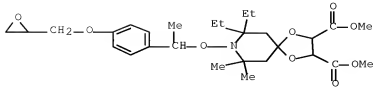
RN 437993-92-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2,2,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



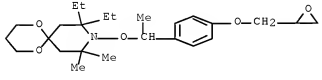
RN 437993-93-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7-diethyl-2,3,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



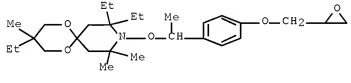
RN 437993-96-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, dimethyl ester (9CI) (CA INDEX NAME)



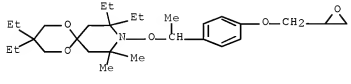
RN 437993-97-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



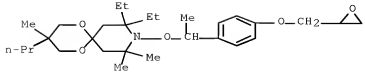
RN 437993-99-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,8-triethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



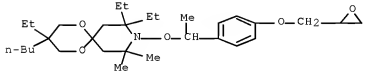
RN 437994-00-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8-tetraethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



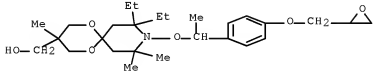
RN 437994-01-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-propyl- (9CI) (CA INDEX NAME)



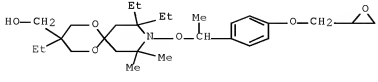
RN 437994-02-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-butyl-3,8,8-triethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



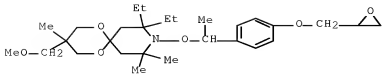
RN 437994-04-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



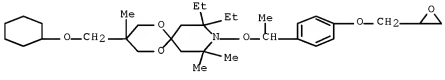
RN 437994-05-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,8-triethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



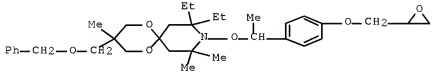
RN 437994-06-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3-(methoxymethyl)-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



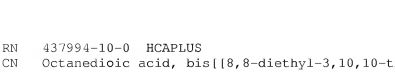
RN 437994-07-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-08-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



RN 437994-09-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



RN 437994-10-0 HCAPLUS
CN Octanedioic acid, bis[[8,8-diethyl-3,10,10-trimethyl-9-[1-[4-

(oxiranylmethoxy)phenyl]ethoxy]-1,5-dioxa-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

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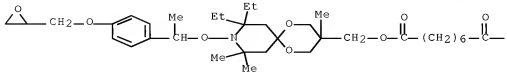

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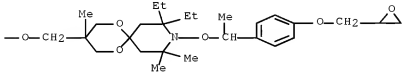

RN 437994-11-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,8-triethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

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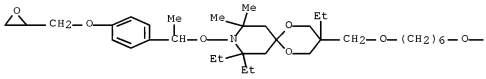

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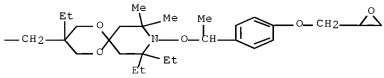
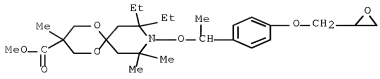
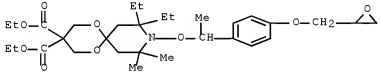


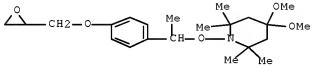
RN 437994-12-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)



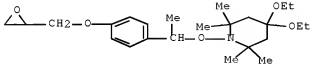
RN 437994-13-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8-diethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, diethyl ester (9CI) (CA INDEX NAME)



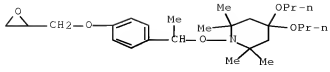
RN 437994-16-6 HCAPLUS
CN Piperidine, 4,4-dimethoxy-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



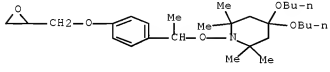
RN 437994-17-7 HCAPLUS
CN Piperidine, 4,4-diethoxy-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



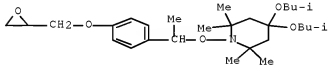
RN 437994-18-8 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-dipropoxy- (9CI) (CA INDEX NAME)



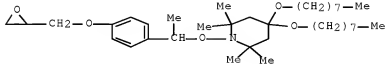
RN 437994-19-9 HCAPLUS
CN Piperidine, 4,4-dibutoxy-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



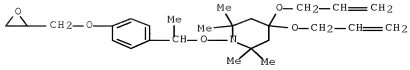
RN 437994-20-2 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-4,4-bis(2-methylpropoxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



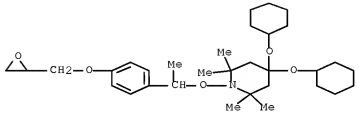
RN 437994-21-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-4,4-bis(octyloxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



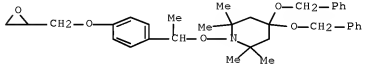
RN 437994-22-4 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



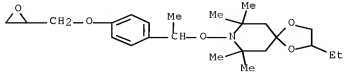
RN 437994-23-5 HCAPLUS
CN Piperidine, 4,4-bis(cyclohexyloxy)-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



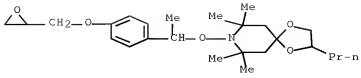
RN 437994-24-6 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



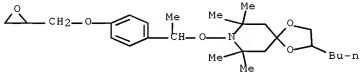
RN 437994-27-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-ethyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



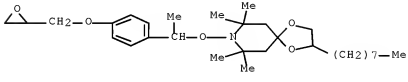
RN 437994-28-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-propyl- (9CI) (CA INDEX NAME)



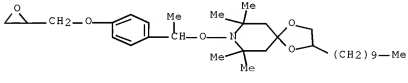
RN 437994-29-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-butyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



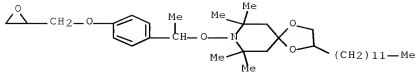
RN 437994-30-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-2-octyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



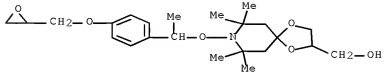
RN 437994-31-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-decyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



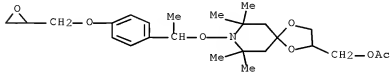
RN 437994-32-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-dodecyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



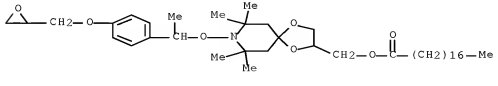
RN 437994-33-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



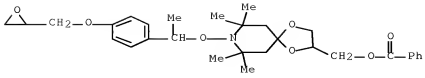
RN 437994-34-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



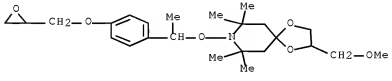
RN 437994-35-9 HCAPLUS
CN Octadecanoic acid, [7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl ester (9CI) (CA INDEX NAME)



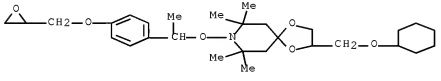
RN 437994-36-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



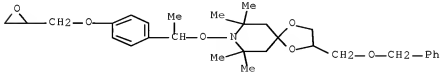
RN 437994-37-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-(methoxymethyl)-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-38-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-39-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



RN 437994-40-6 HCAPLUS
CN Octanedioic acid, bis[[7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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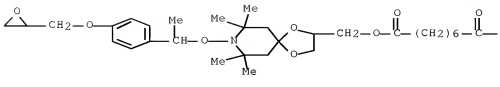

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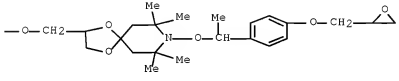

RN 437994-41-7 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[[7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxa-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

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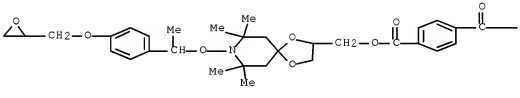

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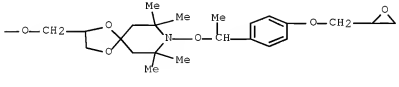

RN 437994-42-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

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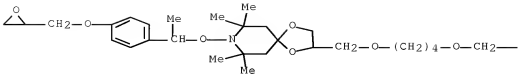

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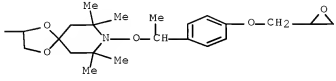
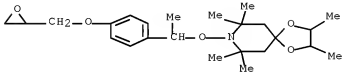
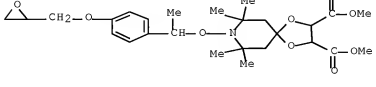


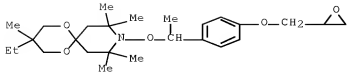
RN 437994-44-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,3,7,7,9,9-hexamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



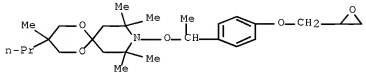
RN 437994-47-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, dimethyl ester (9CI) (CA INDEX NAME)



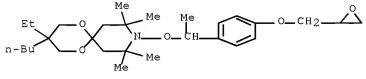
RN 437994-49-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-ethyl-3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



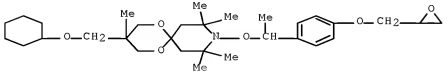
RN 437994-51-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-propyl- (9CI) (CA INDEX NAME)



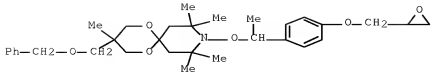
RN 437994-52-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-butyl-3-ethyl-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



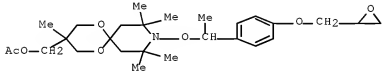
RN 437994-57-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-58-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



RN 437994-59-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



RN 437994-60-0 HCAPLUS
CN Octanedioic acid, bis[[3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,5-dioxa-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

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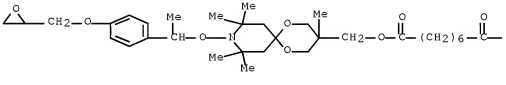

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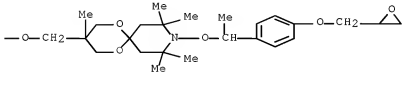

RN 437994-61-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

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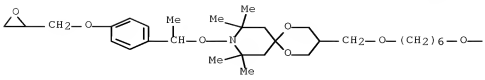

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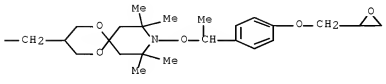
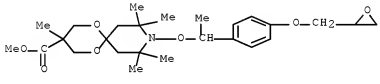
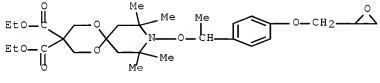


RN 437994-62-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)



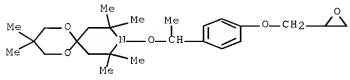
RN 437994-63-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, diethyl ester (9CI) (CA INDEX NAME)



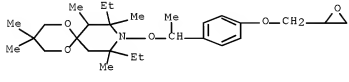
IT 434896-80-3P 437993-47-0P 437993-98-1P
437994-25-7P 437994-26-8P 437994-43-9P
437994-48-4P 437994-50-8P 437994-54-2P
437994-55-3P 437994-56-4P 437994-68-8P
437994-69-9P 437994-70-2P 437994-71-3P
437994-72-4P 437994-73-5P
(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl

or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

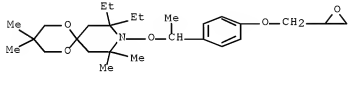
RN 434898-80-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl-9-[1-[4-(2-oxiranylmethoxy)phenyl]ethoxy]- (CA INDEX NAME)



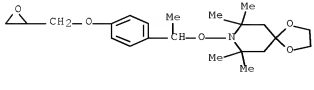
RN 437993-47-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3,3,7,8,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



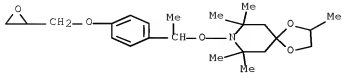
RN 437993-98-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,3,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



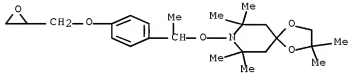
RN 437994-25-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



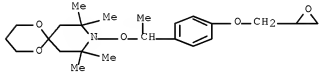
RN 437994-26-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,7,7,9,9-pentamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



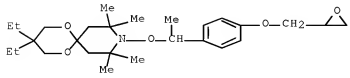
RN 437994-43-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,2,7,7,9,9-hexamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-48-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

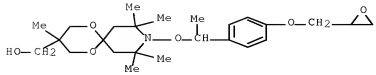


RN 437994-50-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3-diethyl-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

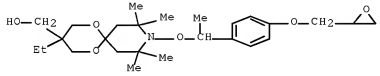


RN 437994-54-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,8,10,10-pentamethyl-

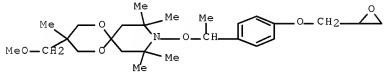
9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



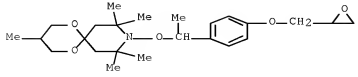
RN 437994-55-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3-ethyl-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-56-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-(methoxymethyl)-3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

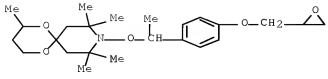


RN 437994-68-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

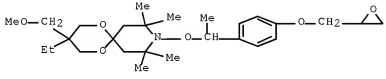


RN 437994-69-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 2,8,8,10,10-pentamethyl-9-[1-[4-

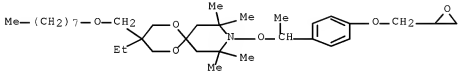
(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



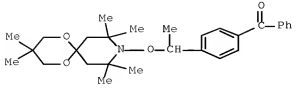
RN 437994-70-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-ethyl-3-(methoxymethyl)-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-71-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-ethyl-8,8,10,10-tetramethyl-3-[(octyloxy)methyl]-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

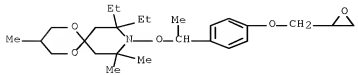


RN 437994-72-4 HCAPLUS
CN Methanone, [4-[1-[(3,3,8,8,10,10-hexamethyl-1,5-dioxa-9-azaspiro[5.5]undec-9-yl)oxy]ethyl]phenyl]phenyl- (CA INDEX NAME)



RN 437994-73-5 HCAPLUS

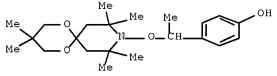
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



IT 437994-67-7P
(intermediate; N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

RN 437994-67-7 HCAPLUS

CN Phenol, 4-[1-[(3,3,8,8,10,10-hexamethyl-1,5-dioxa-9-azaspiro[5.5]undec-9-yl)oxy]ethyl]- (CA INDEX NAME)



IC ICM C07D211-94
ICS C08F002-00

CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 28, 39, 67

IT 437993-14-1 437993-15-2 437993-16-3
437993-17-4 437993-18-5 437993-19-6
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437993-29-8 437993-30-1 437993-31-2
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437994-61-1 437994-62-2 437994-63-3
437994-64-4 437994-65-5
(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

IT 434898-80-3P 437993-47-0P 437993-98-1P
437994-25-7P 437994-26-8P 437994-43-9P
437994-46-2P 437994-48-4P 437994-50-8P
437994-54-2P 437994-55-3P 437994-56-4P
437994-68-8P 437994-69-9P 437994-70-2P
437994-71-3P 437994-72-4P 437994-73-5P
(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

IT 437994-67-7P
(intermediate; N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

L41 ANSWER 26 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:354020 HCAPLUS Full-text
DOCUMENT NUMBER: 136:370147
TITLE: Soluble polymer supports for organic synthesis
INVENTOR(S): Janda, Kim D.; Gravert, Dennis J.
PATENT ASSIGNEE(S): The Scripps Research Institute, USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp., Cont. of U.S. Ser. No. 161,604.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020055124	A1	20020509	US 2001-996402 <--	20011119
PRIORITY APPLN. INFO.:			US 1998-161604 <--	A1 19980923

ED Entered STN: 12 May 2002

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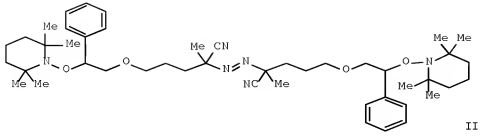


II

AB Polymer supports for liquid-phase organic synthesis (LPOS) are employed in a process for transferring a chemical intermediate between immiscible solvents. These compds. are produced with an expanded range of solubility range in a variety of solvent systems. A sequence of normal and "living" free radical polymns. are employed to generate a library of block copolymers possessing either block or graft architecture with initiators having N:N and TEMPO groups tethered by ester or ether linkages for styrene, 4-tert-butylstyrene (I), 3,4-dimethoxystyrene, vinylpyrrolidinone, N-isopropylacrylamide, and 1-methacryloyloxy-2- phenyl-2-(2,2,6,6-tetramethyl-1-piperidinyloxy)ethane. A typical block copolymer was manufactured by polymerization of 7.75 mmol mg styrene 8 h at 70° in 1,2-dichlorobenzene in the presence of initiator II, and polymerization of 1.08 mmol I 12 h at 130° in the presence of 1.02 mg intermediate.

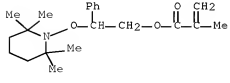
IT 213994-85-5P 213994-88-8P 423126-12-3P
(graft polymer precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)

RN 213994-85-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with 4-ethenyl-1,2-dimethoxybenzene (9CI) (CA INDEX NAME)

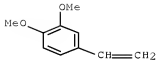
CM 1

CRN 213994-57-1
CMF C21 H31 N O3



CM 2

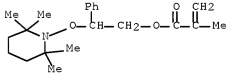
CRN 6380-23-0
CMF C10 H12 O2



RN 213994-88-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1
CMF C21 H31 N O3



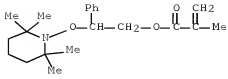
CM 2

CRN 88-12-0
CMF C6 H9 N O

RN 423126-12-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

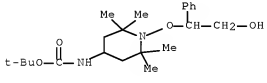
CRN 213994-57-1
CMF C21 H31 N O3



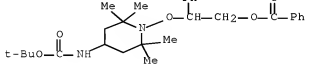
CM 2

CRN 100-42-5
CMF C8 H8

IT 213994-50-4P 423126-07-2P
(polymerization initiator precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
RN 213994-50-4 HCAPLUS
CN Carbamic acid, [1-(2-hydroxy-1-phenylethoxy)-2,2,6,6-tetramethyl-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 423126-07-2 HCAPLUS
CN Carbamic acid, [1-[2-(benzoyloxy)-1-phenylethoxy]-2,2,6,6-tetramethyl-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT 188119-33-7P 203382-60-9P 213994-38-8P
(polymerization initiator; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
RN 188119-33-7 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

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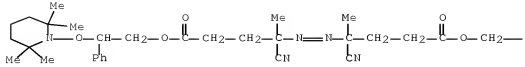
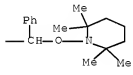
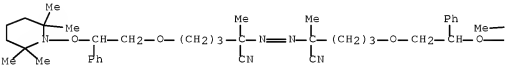


PAGE 1-B



RN 203382-60-9 HCAPLUS
CN Pentanenitrile, 2,2'-azobis[2-methyl-5-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (9CI) (CA INDEX NAME)

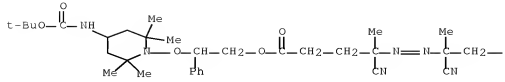
PAGE 1-A



PAGE 1-B

RN 213994-38-8 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-2,2,6,6-tetramethyl-1-piperidinyl]oxy]-2-phenylethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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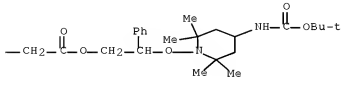
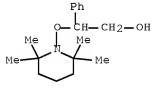
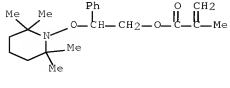


IT 161776-41-6
(reactive polymerization initiator precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



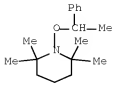
IT 213994-57-1P
(reactive polymerization initiator; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
RN 213994-57-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester (CA INDEX NAME)



IC ICM G01N033-53

ICS G01N033-543; C08F008-30; C08F008-44; C08F008-32
INCL 435007100
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23
IT 213994-85-5P 213994-88-8P 423126-12-9P
(graft polymer precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
IT 213994-43-5P 213994-50-4P 423126-07-2P
(polymerization initiator precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
IT 188119-33-7P 203382-60-9P 213994-38-8P
(polymerization initiator; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
IT 161776-41-6
(reactive polymerization initiator precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)
IT 213994-57-1P
(reactive polymerization initiator; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)

L41 ANSWER 27 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:311344 HCAPLUS Full-text
DOCUMENT NUMBER: 137:79284
TITLE: Syntheses of functional alkoxyamines and application to syntheses of well-defined star polymers
AUTHOR(S): Miura, Yozo; Yoshida, Yuji
CORPORATE SOURCE: Department of Applied Chemistry, Graduate School of Engineering, Osaka City University, Osaka, 558-8585, Japan
SOURCE: Macromolecular Chemistry and Physics (2002), 203(5/6), 879-888
CODEN: MCHPES; ISSN: 1022-1352
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 25 Apr 2002
AB Three kinds of 2,2,6,6-tetramethylpiperidine-N-oxyl (TEMPO)-based alkoxyamines, 1-(4-iodophenyl)-(3), 1-(4-ethynylphenyl)-(4), and 1-[4-(1, 3, 2-dioxaborinan-2-yl)phenyl]-1-(2,2,6,6-tetramethyl-1- piperidinyloxyl)ethanes (5) were prepared The Pd-catalyzed cross-coupling reaction of 3 with 1,3,5-triethynylbenzene or 1,3,5-tribromobenzene with 4 gave the corresponding 1,3,5-tris(alkoxyaminophenylethynyl)benzene 11, and the Pd-catalyzed cross-coupling reaction of 5 with 1,3,5-tribromobenzenegave the corresponding 1,3,5-tris(alkoxyaminophenyl)benzene 12. Bulk polymerization of styrene (St) at 120°C initiated with 11 and 12 were investigated. The first-order plots, linear relationships between and conversion, and low Mw/Mns of the formed poly(St) showed that the polymerization proceeded in the "living" fashion leading to formation of well-defined three-arm star polymers with Mw/Mn of 1.20-1.40.
IT 154554-67-3
(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)
RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)

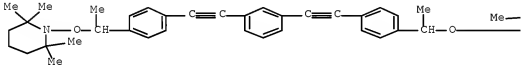


IT 439904-91-3P 439904-92-4P 439904-93-5P
439904-94-6P
(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)

RN 439904-91-3 HCAPLUS

CN Piperidine, 1,1'-[1,3-phenylenebis(2,1-ethynediyl-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

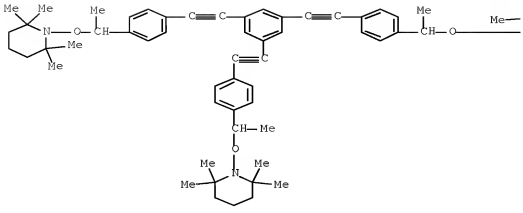


PAGE 1-B

RN 439904-92-4 HCAPLUS

CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris(2,1-ethynediyl-4,1-phenyleneethylideneoxy)]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

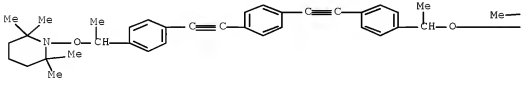
PAGE 1-A



PAGE 1-B

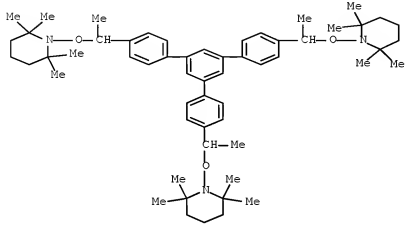
RN 439904-93-5 HCAPLUS
CN Piperidine, 1,1'-[1,4-phenylenebis(2,1-ethynediyl-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

RN 439904-94-6 HCAPLUS
CN Piperidine, 1,1'-[[5'-[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl][1,1':3',1''-terphenyl]-4,4''-diyl]bis(ethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 154554-67-3
(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)
IT 439904-91-3P 439904-92-4P 439904-93-5P 439904-94-6P
(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

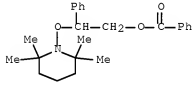
L41 ANSWER 28 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:289924 HCAPLUS Full-text
DOCUMENT NUMBER: 137:217300
TITLE: Preparation of diblock and triblock copolymers of styrene, 2,5-norbornadiene, ethylmethacrylate and PEG by nitroxide-controlled free radical polymerization
AUTHOR(S): Adeli, Mohsen; Entezami, Ali Akbar
CORPORATE SOURCE: Polymer Laboratory, Faculty of Chemistry, University of Tabriz, Tabriz, 51664, Iran
SOURCE: Iranian Polymer Journal (2001), 10(6), 393-402
CODEN: IPJOFF; ISSN: 1026-1265
PUBLISHER: Iran Polymer Institute
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 18 Apr 2002

AB 2,5-Norbornadiene was polymerized in bulk at 125° in presence of a low molar mass of polystyrene-TEMPO as macroinitiator. The structure and polydispersity of the obtained diblock copolymer (PSt-PNB-TEMPO) were determined by IR, 1H NMR spectroscopy and GPC measurement, resp., where TEMPO is 2,2,6,6-tetramethylpiperidinyl-1-oxy and PNB is polynorbornadiene. The triblock copolymer of styrene-2,5- norbornadiene-ethylmethacrylate (PSt-PNB-PEMA) using a PSt-PNB-TEMPO as the macroinitiator in the presence of camphorsulfonic acid (CSA) was prepared Also the triblock copolymer containing polyethylmethacrylate and poly(ethylene glycol) designated as PEMA-PEG-PEMA was synthesized by a novel method. The 1H NMR and FTIR studies of triblock copolymers confirmed their structures and the absence of TEMPO end groups for PEMA.

IT 81913-53-3P
(preparation of block copolymers of styrene, 2,5-norbornadiene, Et methacrylate and PEG by nitroxide-controlled free radical polymerization)

RN 81913-53-3 HCAPLUS

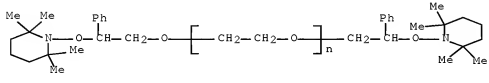
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



IT 454692-70-7P
(preparation of block copolymers of styrene, 2,5-norbornadiene, Et methacrylate and PEG by nitroxide-controlled free radical polymerization)

RN 454692-70-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-ω-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (9CI) (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)

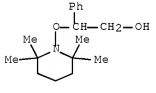
IT 81913-53-3P
(preparation of block copolymers of styrene, 2,5-norbornadiene, Et methacrylate and PEG by nitroxide-controlled free radical polymerization)

IT 27252-69-3P 386756-36-1P, Ethylene oxide-ethyl methacrylate block polymer 454692-68-3DP, 2,5-Norbornadiene-styrene block copolymer, TEMPO-terminated 454692-70-7P
(preparation of block copolymers of styrene, 2,5-norbornadiene, Et

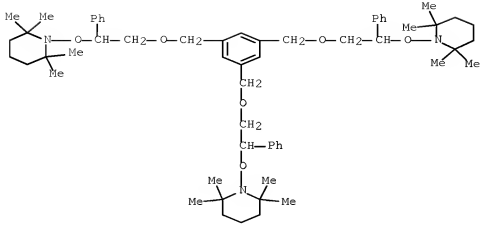
methacrylate and PEG by nitroxide-controlled free radical polymerization)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

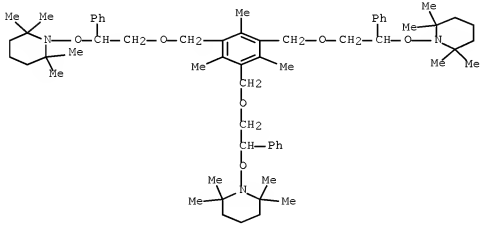
L41 ANSWER 29 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:629050 HCAPLUS Full-text
DOCUMENT NUMBER: 135:358194
TITLE: Synthesis of three- and six-arms polystyrene via living/controlled free radical polymerization
AUTHOR(S): Chessa, G.; Scrivanti, A.; Matteoli, U.; Castelvetro, V.
CORPORATE SOURCE: Dipartimento di Chimica, Universita di Venezia, Venice, 30123, Italy
SOURCE: Polymer (2001), 42(23), 9347-9353
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Aug 2001
AB Three new polyfunctional TEMPO-based initiators have been synthesized by reaction of some mesitylene cores and 2,2,6,6-tetramethyl-1-(2- hydroxy-1-phenylethoxy)-piperidine. They have been employed in the living/controlled radical polymerization of styrene to provide three- and six-arm star macromols. These polymers have mol. weight ranging from 6000 to 11000 g/mol and narrow mol. weight distributions (PD<1.3). Cleavage of the link between the core and the arms was achieved, using a two-step sequence implying the preliminary removal of the TEMPO chain ends followed by catalytic hydrogenolysis. The dimensions of the individual arms so obtained closely match the values expected from the styrene/initiator molar ratio in the polymerization feed.
IT 161776-41-6
(in catalyst preparation; synthesis of three- and six-arm polystyrene via living/controlled free radical polymerization)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



IT 372522-45-7P 372522-46-8P 372522-47-9P
(synthesis of three- and six-arm polystyrene via living/controlled free radical polymerization)
RN 372522-45-7 HCAPLUS
CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris[methyleneoxy(1-phenyl-2,1-ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 372522-46-8 HCAPLUS
CN Piperidine, 1,1',1''-[(2,4,6-trimethyl-1,3,5-benzenetriyl)tris[methyleneoxy(1-phenyl-2,1-ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 372522-47-9 HCAPLUS
CN Pyridine, 4,4',4''-[1,3,5-benzenetriyltris(methyleneoxy)]tris[2,6-bis[[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]methyl]- (9CI) (CA INDEX NAME)

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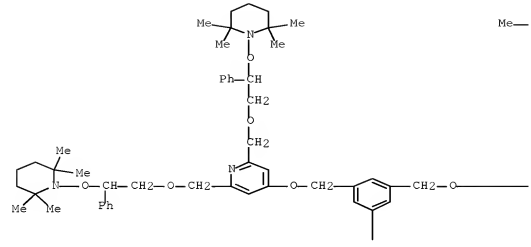
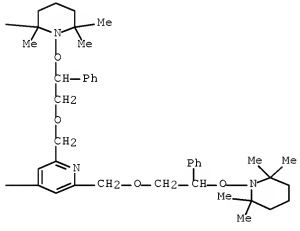
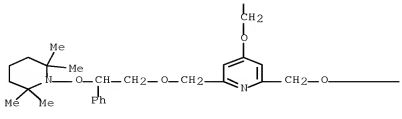
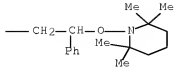


PAGE 1-B



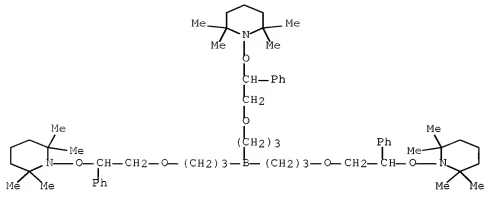
PAGE 2-A



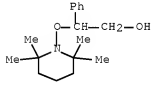


CC 35-3 (Chemistry of Synthetic High Polymers)
IT 18226-42-1, 1,3,5-Tris(bromomethyl)benzene 161776-41-6
(in catalyst preparation; synthesis of three- and six-arm polystyrene via living/controlled free radical polymerization)
IT 372522-45-7P 372522-46-8P 372522-47-9P
(synthesis of three- and six-arm polystyrene via living/controlled free radical polymerization)
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

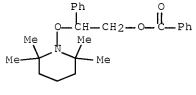
L41 ANSWER 30 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:208762 HCAPLUS Full-text
DOCUMENT NUMBER: 135:5896
TITLE: Synthesis of poly(methylene-b-styrene) by sequential living polymerization
AUTHOR(S): Zhou, Xian-Zhi; Shea, Kenneth J.
CORPORATE SOURCE: Department of Chemistry, University of California Irvine, Irvine, CA, 92697-2025, USA
SOURCE: Macromolecules (2001), 34(9), 3111-3114
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 23 Mar 2001
AB Poly homologation reaction for the synthesis of poly(methylene-b- styrene) block copolymers was considered. A series of block copolymers were prepared by the hydroboration-poly homologation. Control over the chain length of the polymethylene block was achieved by adjusting the initial molar ratio of ylide to organoborane.
IT 341968-37-4P
(borane; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
RN 341968-37-4 HCAPLUS
CN Piperidine, 1,1',1''-[borylidynetris[3,1-propanediyloxy(1-phenyl-2,1-ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



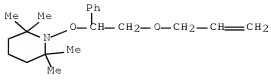
IT 161776-41-6P
(initiator; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



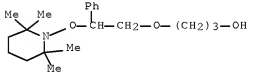
IT 81913-53-3P 341968-36-3P
(synthesis of poly(methylene-b-styrene) by sequential living polymerization)
RN 81913-53-3 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



RN 341968-36-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-phenyl-2-(2-propenyloxy)ethoxy]-(9CI) (CA INDEX NAME)



IT 341968-38-5P
(synthesis of poly(methylene-b-styrene) by sequential living polymerization)
RN 341968-38-5 HCAPLUS
CN 1-Propanol, 3-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (CA INDEX NAME)



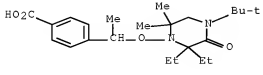
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 341968-37-4P
(borane; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
IT 161776-41-6P
(initiator; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
IT 106-95-6DP, Allyl bromide, reaction product with OH-terminated polystyrene 9003-53-6DP, Styrene homopolymer, consecutively hydroxy-, allyl-terminated, hydroborated 13292-87-0DP, reaction product with allyloxy-terminated polystyrene 81913-53-3P 341968-36-3P
(synthesis of poly(methylene-b-styrene) by sequential living polymerization)
IT 341968-38-5P
(synthesis of poly(methylene-b-styrene) by sequential living polymerization)
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 31 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:31452 HCAPLUS Full-text
DOCUMENT NUMBER: 134:101275
TITLE: Preparation of mono and multifunctional alkoxyamines for forming nitroxyl radical initiators and regulators useful in the preparation of polymers with narrow polydispersity
INVENTOR(S): Kramer, Andreas; Nesvadba, Peter; Zink, Marie-Odile; Wunderlich, Wiebke
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002345	A2	20010111	WO 2000-EP5899	20000626
WO 2001002345	A3	20010719		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2375806	A1	20010111	CA 2000-2375806	20000626
EP 1189875	A2	20020327	EP 2000-951302	20000626
EP 1189875	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003503474	T	20030128	JP 2001-507787	20000626
AT 272610	T	20040815	AT 2000-951302	20000626
US 6875831	B1	20050405	US 2001-19618	20011220
PRIORITY APPLN. INFO.:			EP 1999-810567 A	19990702
			WO 2000-EP5899 W	20000626

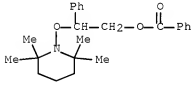
OTHER SOURCE(S): MARPAT 134:101275
ED Entered STN: 12 Jan 2001
AB The title alkoxyamines especially useful for the living polymerization of unsatd. monomers or/and oligomers giving polymers with good conversion are compds. bearing groups which can liberate stable free nitroxyl radicals of specific structures.
IT 319458-08-7P
(initiator/intermediate for multifunctional initiator; preparation of mono and multifunctional alkoxyamines as initiators for free radical polymerization with narrow polydispersity)
RN 319458-08-7 HCAPLUS
CN Benzoic acid, 4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]- (CA INDEX NAME)



IC ICM C07C239-20
ICS C07D211-94; C08F004-00
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 243972-13-6P 243972-14-7P 243972-16-9P 264280-52-6P
319457-95-9P 319457-96-0P 319457-97-1P 319458-04-3P
319458-08-7P 319458-11-2P 319458-12-3P 319458-15-6P

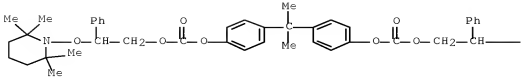
319458-16-7P 319458-17-8P 319458-25-8P 319458-26-9P
319458-28-1P 319458-30-5P 319458-31-6P 319458-33-8P
319458-35-0P 319458-36-1P 319458-38-3P 319458-39-4P
319458-41-8P 319458-42-9P 319458-44-1P 319458-45-2P
319458-47-4P 319458-48-5P 319458-50-9P 319458-52-1P
319458-53-2P
(initiator/intermediate for multifunctional initiator; preparation of mono and multifunctional alkoxyamines as initiators for free radical polymerization with narrow polydispersity)

L41 ANSWER 32 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:639540 HCAPLUS Full-text
DOCUMENT NUMBER: 134:5175
TITLE: Simultaneous atom transfer and nitroxide mediated controlled free radical polymerization of styrene
AUTHOR(S): Korn, Michael R.; Gagne, Michel R.
CORPORATE SOURCE: Dep. Chem., Southwest Texas State University, San Marcos, TX, 78666, USA
SOURCE: Chemical Communications (Cambridge) (2000), (18), 1711-1712
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 14 Sep 2000
AB Equimolar mixts. of nitroxide-mediated radical polymerization and atom-transfer radical polymerization initiators lead to polystyrene that is unimodal by GPC; the mechanism of action most consistent with the data suggests that under the reaction conditions, TEMPO and Cl end groups scramble rapidly relative to the propagation rate, and result in a single type of polymer chain.
IT 81913-53-3, 2-Phenyl-2-(2,2,6,6-tetramethylpiperidin-1-yloxy)ethyl benzoate 308832-98-6
(in simultaneous atom transfer and nitroxide mediated controlled radical polymerization of styrene)
RN 81913-53-3 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)

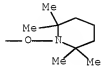


RN 308832-98-6 HCAPLUS
CN Carbonic acid, (1-methylethylidene)di-4,1-phenylene bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



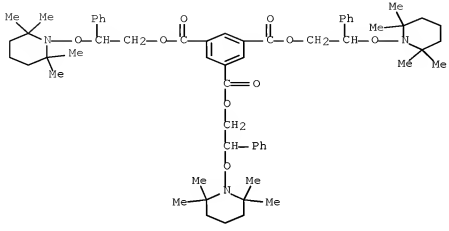
PAGE 1-B



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 100-44-7, Benzyl chloride, uses 81913-53-3, 2-Phenyl-2-(2,2,6,6-tetramethylpiperidin-1-yloxy)ethyl benzoate 243844-72-6, 4-(1-Pyrenyl)butyl 3-(chloromethyl)benzoate 308832-98-6
(in simultaneous atom transfer and nitroxide mediated controlled radical polymerization of styrene)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 33 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:559144 HCAPLUS Full-text
DOCUMENT NUMBER: 132:208171
TITLE: Synthesis of narrow-polydispersity 3-star-polystyrene via nitroxide-mediated radical polymerization
AUTHOR(S): Zhou, Deliang; Yang, Nan-Loh
CORPORATE SOURCE: College of Staten Island, The City University of New York, Staten Island, NY, 10314, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 938-939
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 02 Sep 1999
AB A trifunctional nitroxide radical polymerization initiator, tris[2-phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethyl] trimesate, was used to initiate living radical polymerization of styrene to give narrow-polydispersity 3-star-polystyrene with uniform branch length. The architecture of the polymers was verified by hydrolysis and GPC anal.
IT 166983-62-6, Tris[2-phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethyl] trimesate
(initiator for living radical polymerization of styrene)
RN 166983-62-6 HCAPLUS

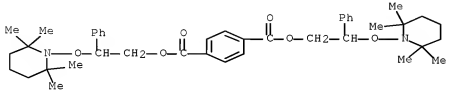
CN 1,3,5-Benzenetricarboxylic acid, tris[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



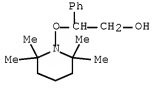
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 166983-62-6, Tris[2-phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethyl] trimesate
(initiator for living radical polymerization of styrene)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 34 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:558851 HCAPLUS Full-text
DOCUMENT NUMBER: 132:152244
TITLE: Synthesis and properties of polymeric networks prepared by "living" free radical polymerization and end-linking processes
AUTHOR(S): Chaumont, Philippe; Asgarzadeh, Firouz; Ourdouillie, Pascal; Beyou, Emmanuel; Mechin, Francoise; Dumon, Michel
CORPORATE SOURCE: Unite Mixte de Recherches "Ingenierie des Materiaux Macromoleculaires", Universite, Villeurbanne, 69622, Fr.
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 366-367
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 02 Sep 1999
AB Polymer networks were synthesized by "living" free radical polymerization, i.e. the free radical synthesis of difunctional precursors, followed by the crosslinking of these precursors. Three types of controlled polymerization were studied to prepare the precursors and the networks: (a) reversible termination with nitroxide type control agents, (b) atom transfer radical polymerization, and (c) radical addition-fragmentation transfer. The structure and the swelling properties of the gels formed were studied.

IT 257955-86-5P
(free radical control agent; for living free radical polymn
. by reversible termination with nitroxide radicals)
RN 257955-86-5 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



IT 161776-41-6
(reactant; in preparation of free-radical control agent for living free radical polymerization by reversible termination with nitroxide radicals)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



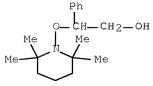
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 257955-86-5P
(free radical control agent; for living free radical polymn
. by reversible termination with nitroxide radicals)
IT 161776-41-6
(reactant; in preparation of free-radical control agent for living free radical polymerization by reversible termination with nitroxide radicals)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 35 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:279746 HCAPLUS Full-text
DOCUMENT NUMBER: 130:325501
TITLE: Procedure for manufacture of block copolymers with controlled architecture via functional radical initiators and living radical polymerization, and initiator compositions, and corresponding copolymers
INVENTOR(S): Bertin, Denis; Destarac, Mathias; Boutevin, Bernard

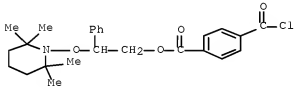
PATENT ASSIGNEE(S): Elf Atochem S.A., Fr.
SOURCE: Eur. Pat. Appl., 34 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 911350	A1	19990428	EP 1998-402624 <--	19981022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2770219	A1	19990430	FR 1997-13383 <--	19971024
EP 1277771	A2	20030122	EP 2002-78512 <--	19981022
R: AT, BE, DE, ES, FR, GB, IT, NL, SE, FI				
EP 1288236	A2	20030305	EP 2002-78511 <--	19981022
R: AT, BE, DE, ES, FR, GB, IT, NL, SE, FI				
PRIORITY APPLN. INFO.:			FR 1997-13383 <--	A 19971024
			EP 1998-402624 <--	A3 19981022

OTHER SOURCE(S): MARPAT 130:325501
ED Entered STN: 06 May 1999
AB The first step in the procedure is thermally induced radical polymerization of at least one monomer M1 = methacrylic monomer and an initiator X-A-Y, where X and Y = monovalent living radical groups and A = divalent linking group capable of radical polymerization and radical-reactive groups, e.g., diazo -N=N-, peroxide -O-O-, to obtain a living polymer X-D (or Y-E)PM1-T where D = is a free radical moiety and T = terminal group. The initiator is obtained by reaction of 4,4'-Azobis[4- cyanovaleric acid] and end-functionalized alcs. or by reaction of H2O2 and an acid chloride containing groups X or Y. In the second step, living radical polymerization of the polymer and at least one other monomer, M2, is carried out, either by photochem. activation or by chain transfer control, to obtain a multifunctional macroinitiator that can be used in yet another polymerization step with at least one monomer M3; M2 and M3 are selected from vinyl, allyl, vinylidene, diene, or olefinic monomers. The second step is carried out in presence of transition metal complex catalysts, preferably CuZ'/L where Z = halogen, hexafluorophosphate, acetate and L = α-diimine ligand. Thus, a triblock copolymer, PS-PABu-PS was obtained; the initiator was prepared from 4,4'-Azobis[4-cyanovaleric acid] and trichloroethanol and used in radical polymerization of Bu acrylate at 130° to obtain the living poly(Bu acrylate) of average mol. weight 8700 g/mol and degree of polymerization of 64. The living polymer was then mixed with styrene and CuCl and bipyridine as radical polymerization catalyst system; the triblock copolymer was isolated from the reaction medium and has average mol. weight of 92,600 g/mol, of which 8700 g/mol correspond to the poly(Bu acrylate) sequence and 45,000 to the polystyrene sequences.
IT 161776-41-6, 2-Phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethanol
(functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



IT 223668-07-3P
(intermediate; functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)
RN 223668-07-3 HCAPLUS
CN Benzoic acid, 4-(chlorocarbonyl)-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester (CA INDEX NAME)



IT 223668-08-4P
(peroxide initiator; functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)
RN 223668-08-4 HCAPLUS
CN Benzoic acid, 4,4'-(dioxydicarbonyl)bis-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

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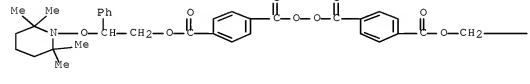
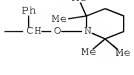


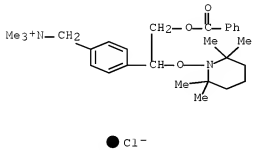
PAGE 1-B



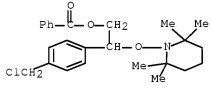
IC ICM C08F293-00
ICS C07C255-65
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 100-20-9, 1,4-Benzenedicarbonyl dichloride 115-20-8, Trichloroethanol 2638-94-0, 4,4'-Azobis[4-cyanovaleric acid] 7722-84-1, Hydrogen peroxide (H2O2), reactions 30887-99-1 161776-41-6, 2-Phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethanol
(functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)
IT 223668-07-3P
(intermediate; functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)
IT 223668-08-4P
(peroxide initiator; functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 36 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:87261 HCAPLUS Full-text
DOCUMENT NUMBER: 130:237921
TITLE: Direct Synthesis of Dispersed Nanocomposites by in Situ Living Free Radical Polymerization Using a Silicate-Anchored Initiator
AUTHOR(S): Weimer, Marc W.; Chen, Hua; Giannelis, Emmanuel P.; Sogah, Dotsevi Y.
CORPORATE SOURCE: Department of Chemistry and Chemical Biology Baker Laboratory Department of Materials Science and Engineering, Cornell University, Ithaca, NY, 14853, USA
SOURCE: Journal of the American Chemical Society (1999), 121(7), 1615-1616
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 11 Feb 1999
AB Anchoring a living free radical polymerization (LFRP) initiator inside the galleries of layered silicate hosts followed by intercalation and polymerization of styrene gives directly dispersed polystyrene(PS)-silicate nanocomposite. The initiator was prepared and ion-exchanged onto a com. montmorillonite layered silicate to obtain the intercalated species. The LFRP was carried out by heating a dispersion of the intercalated initiator species in styrene for 4 h; the system solidified completely to yield the nanocomposite of silicate randomly dispersed spatially and directionally in the polystyrene matrix consisting of small domains. This level of uniform dispersion is not achievable by either melt or solution intercalation of a preformed polystyrene. The polymer was desorbed from the silicate by refluxing the nanocomposite in THF/LiBr; the low polydispersity index (PDI) of 1.3 and the agreement between the calculated number-average mol. weight (Mn) of 24 400 and observed Mn of 21 500, indicate a remarkably well-behaved reaction even under such heterogeneous conditions.

IT 221362-46-5P
(radical initiator; preparation of radical initiator for synthesis of dispersed silicate-polystyrene nanocomposites)
RN 221362-46-5 HCAPLUS
CN Benzenemethanaminium, 4-[2-(benzoyloxy)-1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



IT 216104-33-5
(radical initiator; preparation of radical initiator for synthesis of dispersed silicate-polystyrene nanocomposites)
RN 216104-33-5 HCAPLUS
CN Benzeneethanol, 4-(chloromethyl)-β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 37, 57
IT 221362-46-5P
(radical initiator; preparation of radical initiator for synthesis of dispersed silicate-polystyrene nanocomposites)
IT 216104-33-5
(radical initiator; preparation of radical initiator for synthesis of dispersed silicate-polystyrene nanocomposites)
IT 1318-93-0, Montmorillonite, uses
(support and nanocomposite component; synthesis of dispersed nanocomposites by in situ living free radical polymerization using silicate-anchored initiator)
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 37 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:614328 HCAPLUS Full-text

DOCUMENT NUMBER: 129:302983
TITLE: Polymers having cores and branched linear arms for optical uses
INVENTOR(S): Kushida, Takashi; Sadanobu, Jiro
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10251337	A	19980922	JP 1997-59091 <--	19970313
PRIORITY APPLN. INFO.:			JP 1997-59091 <--	19970313

ED Entered STN: 29 Sep 1998
GI

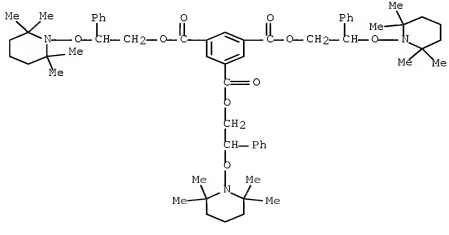
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title polymers have multifunctional cores and linear polymer arms with mol. weight 500-1,000,000 extended like stars or combs. The polymers are used as optical materials showing small optical anisotropy and high heat resistance. Thus, styrene was polymerized by using a polyfunctional polymerization initiator I in N at 130° for 30 h to give a branched polystyrene (having 3 arms) having weight average mol. weight (Mw) 9,4 + 104, Mw at arm part 3.2 + 104, and glass-transition temperature 109°.

IT 166983-62-6
(polymerization initiators; for branched polystyrene with low optical anisotropy and heat resistance)

RN 166983-62-6 HCAPLUS

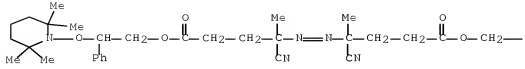
CN 1,3,5-Benzenetricarboxylic acid, tris[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



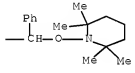
IC ICM C08F012-08
ICS C08G061-06; C08J005-18; G02B001-04; B29C055-12; B29L007-00
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 73
IT 166983-62-6
(polymerization initiators; for branched polystyrene with low optical anisotropy and heat resistance)

L41 ANSWER 38 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:572917 HCAPLUS Full-text
DOCUMENT NUMBER: 129:276766
TITLE: Soluble supports tailored for organic synthesis: parallel polymer synthesis via sequential normal/living free radical processes
AUTHOR(S): Gravert, Dennis J.; Datta, Anita; Wentworth, Paul, Jr.; Janda, Kim D.
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for Chemical Biology, Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Journal of the American Chemical Society (1998), 120(37), 9481-9495
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 10 Sep 1998
AB To expand the availability and solubility range of polymer supports for liquid-phase organic synthesis (LPOS) we have applied a sequence of normal and "living" free radical polymerization to generate a library of block copolymers possessing either block or graft architecture with initiators and a diverse set of vinyl monomers. The structure, mol. weight, and polydispersity (PD) of the individual library members have been determined by size exclusion chromatog. (SEC), 1H and 13C NMR, and as a function of the solubility of each polymer in a range of solvents. One copolymer, polyBS-DS (Mn = 17 000, PD = 1.54) derived from 4-tert-butylstyrene (BS), 3,4-dimethoxystyrene (DS) has a solubility profile [soluble in toluene, THF (THF), ether, acetone and methylene chloride (DCM), insol. in methanol and water] that is different from the present polymer of choice for LPOS, poly(ethylene) glycol (PEG), and was studied in some detail as a new support in LPOS. The α-nitrile groups of polyBS-DS are reduced smoothly with LiAlH4 in THF to give the amino functionalized copolymer (0.14 mmol g-1 of amino groups based on a quant. ninhydrin anal.). Kinetic studies have revealed that derivatization of the amino groups of the copolymer with 4-dimethylaminocinnamaldehyde occurs at a comparable rate to a solution counterpart (kpoly22 = 0.49 L mol-1 h-1 vs kaminohexane = 0.69 L mol-1 h-1). Following reaction with N-glutaroyl-(2S,4S)-4-diphenylphosphino- 2-[(diphenylphosphino)methyl]pyrrolidine and exchange of Rh(I), the resulting phosphine containing copolymer, catalyzes the enantioselective hydrogenation of 2-N-acetamidoacrylic acid to N-acetylalanine in THF. An 87% enantiomeric excess (ee) of (S)-N-acetylalanine is obtained, comparable to that observed with a homogeneous phosphine ligand. This work highlights the power of a parallel polymer synthesis strategy, from conception to application, for the generation of polymers possessing unique solubility profiles and functionality which can serve as novel supports in LPOS.
IT 166119-33-7 203382-60-9
(catalyst for; parallel polymer preparation via sequential normal/living free radical polymerization)
RN 188119-33-7 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

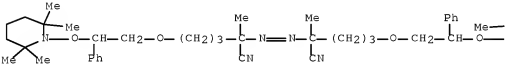


PAGE 1-B



RN 203382-60-9 HCAPLUS
CN Pentanenitrile, 2,2'-azobis[2-methyl-5-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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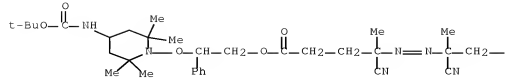
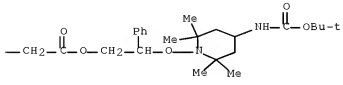
IT 213994-38-8P
(catalyst for; parallel polymer preparation via sequential normal/living free radical polymerization)
RN 213994-38-8 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-2,2,6,6-tetramethyl-1-piperidinyl]oxy]-2-phenylethyl] ester (9CI) (CA INDEX NAME)

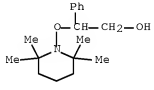
PAGE 1-A



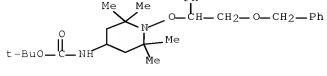
PAGE 1-B



IT 161776-41-6
(in preparation of catalyst; parallel polymer preparation via sequential normal/living free radical polymerization)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)

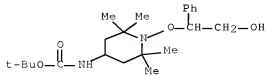


IT 213994-47-9P 213994-50-4P
(in preparation of catalyst; parallel polymer preparation via sequential normal/living free radical polymerization)
RN 213994-47-9 HCAPLUS
CN Carbamic acid, [2,2,6,6-tetramethyl-1-[1-phenyl-2-(phenylmethoxy)ethoxy]-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

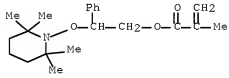


RN 213994-50-4 HCAPLUS

CN Carbamic acid, [1-(2-hydroxy-1-phenylethoxy)-2,2,6,6-tetramethyl-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



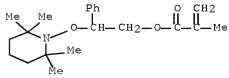
IT 213994-57-1P
(parallel polymer preparation via sequential normal/living free radical polymerization)
RN 213994-57-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester (CA INDEX NAME)



IT 213994-83-3P 213994-85-5P 213994-88-8P
213994-90-2P
(parallel polymer preparation via sequential normal/living free radical polymerization)
RN 213994-83-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with ethenylbenzene and 4-ethenyl-1,2-dimethoxybenzene, graft (9CI) (CA INDEX NAME)

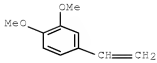
CM 1

CRN 213994-57-1
CMF C21 H31 N O3



CM 2

CRN 6380-23-0
CMF C10 H12 O2



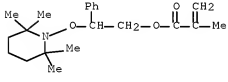
CM 3

CRN 100-42-5
CMF C8 H8

RN 213994-85-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with 4-ethenyl-1,2-dimethoxybenzene (9CI) (CA INDEX NAME)

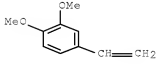
CM 1

CRN 213994-57-1
CMF C21 H31 N O3



CM 2

CRN 6380-23-0
CMF C10 H12 O2

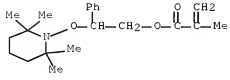


RN 213994-88-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-

piperidinyl)oxy]ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1
CMF C21 H31 N O3



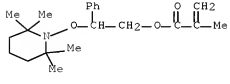
CM 2

CRN 88-12-0
CMF C6 H9 N O

RN 213994-90-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with 4-ethenyl-1,2-dimethoxybenzene and 1-ethenyl-2-pyrrolidinone, graft (9CI) (CA INDEX NAME)

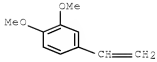
CM 1

CRN 213994-57-1
CMF C21 H31 N O3



CM 2

CRN 6380-23-0
CMF C10 H12 O2



CM 3

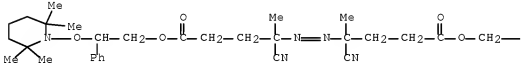
CRN 88-12-0
CMF C6 H9 N O

CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 67
IT 188119-33-7 203382-60-9
(catalyst for; parallel polymer preparation via sequential normal/living free radical polymerization)
IT 213994-38-8P
(catalyst for; parallel polymer preparation via sequential normal/living free radical polymerization)
IT 920-46-7, Methacryloyl chloride 4693-47-4 14691-88-4 24424-99-5, Di-tert-butyl dicarbonate 161776-41-6
(in preparation of catalyst; parallel polymer preparation via sequential normal/living free radical polymerization)
IT 213994-43-5P 213994-47-9P 213994-50-4P
(in preparation of catalyst; parallel polymer preparation via sequential normal/living free radical polymerization)
IT 213994-57-1P
(parallel polymer preparation via sequential normal/living free radical polymerization)
IT 6203-18-5DP, reaction products with reduced and hydrogenated Bu styrene-dimethoxystyrene block copolymer 97395-21-6P 110661-56-8P, 4-tert-Butylstyrene-styrene block copolymer 116219-50-2P, Styrene-N-vinylpyrrolidone block polymer 181784-89-4P, N-Isopropylacrylamide-styrene block polymer 213994-60-6P, Styrene-3,4-Dimethoxystyrene block copolymer 213994-69-5P 213994-72-0P 213994-74-2P 213994-79-7P 213994-83-3P 213994-85-5P 213994-88-8P 213994-96-2P 214777-13-6P
(parallel polymer preparation via sequential normal/living free radical polymerization)
REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

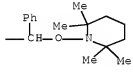
L41 ANSWER 39 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:159571 HCAPLUS Full-text
DOCUMENT NUMBER: 128:180697
TITLE: Bifunctional initiators for free radical polymerization of non-crosslinked block copolymers
AUTHOR(S): Gravert, Dennis J.; Janda, Kim D.
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Tetrahedron Letters (1998), 39(12), 1513-1516
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 18 Mar 1998
AB Novel bifunctional initiators have been designed with functional groups that independently produce free radicals. Initiators were synthesized to contain both diazene (-N:N-) and 2,2,6,6- tetramethylpiperidinyl-1-oxy (TEMPO) moieties tethered by ester or ether linkages. It is anticipated that these compds. will be useful for producing a diverse number of block copolymers for applications in polymer-supported organic synthesis and materials science.
IT 188119-33-7 203382-60-9
(preparation of bifunctional initiators for free radical polymn. of non-crosslinked block copolymers)
RN 188119-33-7 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

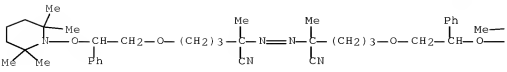


PAGE 1-B



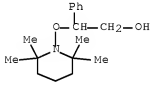
RN 203382-60-9 HCAPLUS
CN Pentanenitrile, 2,2'-azobis[2-methyl-5-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

IT 161776-41-6
(preparation of bifunctional initiators for free radical polym
. of non-crosslinked block copolymers)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA
INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 188119-33-7 203382-60-9
(preparation of bifunctional initiators for free radical polym
. of non-crosslinked block copolymers)
IT 2638-94-0 4693-47-4 161776-41-6
(preparation of bifunctional initiators for free radical polym
. of non-crosslinked block copolymers)
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

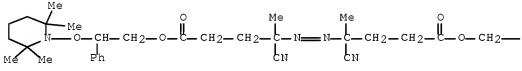
L41 ANSWER 40 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:146714 HCAPLUS Full-text
DOCUMENT NUMBER: 128:180774
TITLE: In-situ block copolymer formation during
polymerization of a vinyl aromatic monomer
INVENTOR(S): Priddy, Duane B.; Li, Irene Q.
PATENT ASSIGNEE(S): Dow Chemical Co., USA
SOURCE: U.S., 7 pp.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5721320	A	19980224	US 1997-810878 <--	19970305
PRIORITY APPLN. INFO.:			US 1997-810878 <--	19970305

ED Entered STN: 11 Mar 1998
AB The title process for producing a rubber modified polymer from a vinyl aromatic monomer comprising: polymerizing the vinyl aromatic monomer in the presence of a diene rubber having at least one stable free radical group, under polymerization conditions such that a vinyl aromatic-diene block and/or graft copolymer rubber is formed. A nitroixde-terminated polybutadiene was prepared by polymerizing butadiene in the presence of sec-BuLi and 2-phenyl-2-(2,2,6,6-tetramethylpiperidinyl-1-oxy)ethyl glycidyl ether and used in polymerizing styrene to obtain a transparent high-impact polymer.
IT 188119-33-7P 191217-21-7P
(in-situ block copolymer formation during polymerization of a vinyl aromatic monomer)
RN 188119-33-7 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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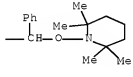
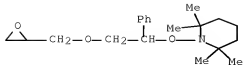
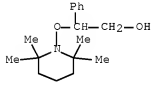


RN 191217-21-7 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-[2-(oxiranylmethoxy)-1-phenylethoxy]- (9CI) (CA INDEX NAME)



IT 161776-41-6
(in-situ block copolymer formation during polymerization of a vinyl aromatic monomer)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



IC ICM C08F255-10
ICS C08F002-38
INCL 525316000
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 188119-33-7P 191217-21-7P
(in-situ block copolymer formation during polymerization of a vinyl aromatic monomer)
IT 106-89-8, Epichlorohydrin, reactions 17170-81-9 161776-41-6
(in-situ block copolymer formation during polymerization of a vinyl aromatic monomer)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

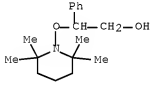
L41 ANSWER 41 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:532628 HCAPLUS Full-text
DOCUMENT NUMBER: 127:221034
TITLE: Block Copolymer Preparation Using Sequential Normal/Living Radical Polymerization Techniques
AUTHOR(S): Li, I. Q.; Howell, B. A.; Dineen, M. T.; Kastl, P. E.; Lyons, J. W.; Meunier, D. M.; Smith, P. B.; Priddy, D. B.
CORPORATE SOURCE: Center for Applications in Polymer Science, Central Michigan University, Mount Pleasant, MI, 48859, USA
SOURCE: Macromolecules (1997), 30(18), 5195-5199
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 Aug 1997

AB Anionic and nitroxide-mediated (NM) radical polymerization works well for styrene but not for acrylates. We have overcome this problem and successfully prepared styrene-b-Bu acrylate (S-BA), styrene-b-Me methacrylate (S-MMA), styrene-b-isoprene (S-IP), and styrene-alt-acrylonitrile-b-isoprene (SAN-IP) polymers using a sequential normal/living radical polymerization scheme. Clear (S-IP and SAN-IP) to translucent (S-BA and S-MMA) films were obtained having microphase-separated polymer morphol. GPC studies and chemical digestion of the IP segments of S-IP and SAN-IP block copolymers confirmed their block structure. The sequential normal/living radical polymerization approach provides a new route to synthesize block polymers that have previously proven very difficult to make.

IT 161776-41-6
(initiator synthesis; preparation of acrylic block copolymers using sequential normal/living radical polymerization)

RN 161776-41-6 HCAPLUS

CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)

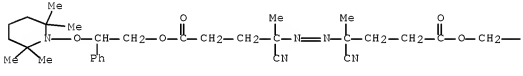


IT 188119-33-7P
(preparation of acrylic block copolymers using sequential normal/living radical polymerization initiated by AIBN and)

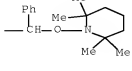
RN 188119-33-7 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

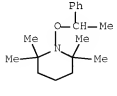


CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36
IT 17170-81-9 161776-41-6
(initiator synthesis; preparation of acrylic block copolymers using sequential normal/living radical polymerization)
IT 183119-33-7P
(preparation of acrylic block copolymers using sequential normal/living radical polymerization initiated by AIBN and)
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 42 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:324791 HCAPLUS Full-text
DOCUMENT NUMBER: 127:5476
TITLE: Difunctional living free radical polymerization initiators for vinyl aromatic monomers
INVENTOR(S): Koster, Robert A.; Priddy, Duane B.; Li, Irene
PATENT ASSIGNEE(S): Dow Chemical Co., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

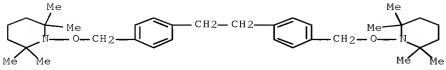
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5627248	A	19970506	US 1995-533799 <--	19950926
US 5677388	A	19971014	US 1996-731216 <--	19961008
PRIORITY APPLN. INFO.:			US 1995-533799 <--	A3 19950926

OTHER SOURCE(S): MARPAT 127:5476
ED Entered STN: 22 May 1997
AB Vinyl aromatic monomers are polymerized in high conversion and low polydispersity using a difunctional nitroxyl initiator R1[-CR2R3-O-NR4R5]2; R1 = linking group; R2, R3 = H, alkyl, cycloalkyl, activating group, or alkyl bridging group; R4, R5 = alkyl, aryl, or C4-10-alkyl ring.
IT 154554-67-3P 184646-29-5P 184646-30-8P
(free radical polymerization initiators for vinyl aromatic monomers)
RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)

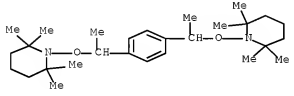


RN 184646-29-5 HCAPLUS
CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenylenemethyleneoxy)]bis[2,2

,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 184646-30-8 HCAPLUS
CN Piperidine, 1,1'-[1,4-phenylenebis(ethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C08F002-00
ICS C08F220-10; C08F012-08; B01J031-06
INCL 526217000
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 28, 67
IT 154554-67-3P 184646-29-5P 184646-30-8P
(free radical polymerization initiators for vinyl aromatic monomers)

L41 ANSWER 43 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:224604 HCAPLUS Full-text
DOCUMENT NUMBER: 126:225616
TITLE: Block copolymer preparation using normal/living tandem polymerization
AUTHOR(S): Li, I. Q.; Howell, B. A.
CORPORATE SOURCE: Cent. Appli. Polym. Sci., Central Michigan Univ., nmunt Pleasant, MI, 48859, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1997), 38(1), 762-763
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 Apr 1997
AB Normal/living sequential polymerization of Bu acrylate and styrene yields translucent films having microphase separated morphol., indicative of block copolymers with incompatible segments. The tandem polymerization approach is based on normal and nitroxyl-mediated living radical polymerization In contrast, poly(Bu acrylate) (pBA)- polystyrene prepared by polymerizing styrene in the presence of pBA yielded a brittle and opaque film having a

morphol. of pBA droplets dispersed in polystyrene and no sign of microphase separation

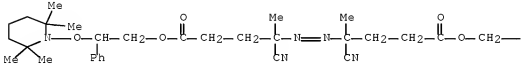
IT 188119-33-7P

(radical initiator; preparation and morphol. of Bu acrylate-styrene block copolymer by normal/living tandem polymerization)

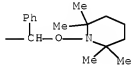
RN 188119-33-7 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

IT 188119-33-7P

(radical initiator; preparation and morphol. of Bu acrylate-styrene block copolymer by normal/living tandem polymerization)

L41 ANSWER 44 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:702098 HCAPLUS Full-text

DOCUMENT NUMBER: 126:31705

TITLE: Mono- and Dinitroxide Styrene Polymerization Initiators

AUTHOR(S): Li, I. Q.; Howell, B. A.; Koster, R. A.; Priddy, D. B.

CORPORATE SOURCE: Center for Applications in Polymer Science, Central Michigan University, Mount Pleasant, MI, 48859, USA

SOURCE: Macromolecules (1996), 29(26), 8554-8555

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Nov 1996

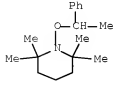
AB Nitroxide-mediated radical polymerization of styrene and of block copolymers of styrene was attempted with mono- and dinitroxide initiators. Benzylic nitroxides were not active initiators unless the benzylic carbon was secondary. Triblock copolymers were prepared by isolating and reacting (with p-methylstyrene) telechelic polystyrene prepared from a dinitroxide initiator.

IT 154554-67-3 184646-29-5 184646-30-8

(nitroxide-mediated radical polymerization and block copolymn. of styrene with mono- and dinitroxide initiators)

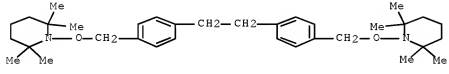
RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



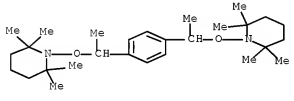
RN 184646-29-5 HCAPLUS

CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenylenemethyleneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 184646-30-8 HCAPLUS

CN Piperidine, 1,1'-[1,4-phenylenebis(ethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 154554-67-3 184646-29-5 184646-30-8

(nitroxide-mediated radical polymerization and block copolymn. of styrene with mono- and dinitroxide initiators)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 45 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:436560 HCAPLUS Full-text

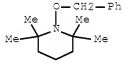
DOCUMENT NUMBER: 125:115236

TITLE: Photochemical synthesis of TEMPO-capped initiators for "living" free radical polymerization

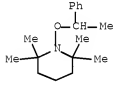
AUTHOR(S): Connolly, Terrence J.; Baldovi, M. V.; Mohtat, N.;

Scaiano, J. C.
CORPORATE SOURCE: Dep. Chemistry, Univ. Ottawa, Ottawa, ON, K1N 6N5, Can.
SOURCE: Tetrahedron Letters (1996), 37(28), 4919-4922
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 24 Jul 1996
AB Two photochem. routes to stoichiometric initiators used in living free-radical polymns. are presented. These routes offer the advantages of higher yields and allow for the preparation of initiators not accessible using current methodol. All initiators gave detectable carbon centered radicals (laser flash photolysis) and promoted the polymerization of styrene.
IT 102261-92-7P 154554-67-3P 157462-14-1P
178625-99-5P 179417-95-9P 179417-97-1P
(catalyst; photochem. synthesis of Tempo-capped initiators for living free-radical polymerization)

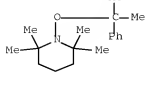
RN 102261-92-7 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(phenylmethoxy)- (CA INDEX NAME)



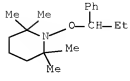
RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



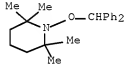
RN 157462-14-1 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-methyl-1-phenylethoxy)- (CA INDEX NAME)



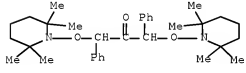
RN 178625-99-5 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylpropoxy)- (CA INDEX NAME)



RN 179417-95-9 HCAPLUS
CN Piperidine, 1-(diphenylmethoxy)-2,2,6,6-tetramethyl- (CA INDEX NAME)



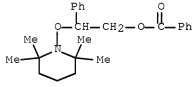
RN 179417-97-1 HCAPLUS
CN 2-Propanone, 1,3-diphenyl-1,3-bis[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



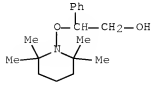
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 102261-92-7P 154554-67-3P 157462-14-1P
178625-99-5P 179417-95-9P 179417-97-1P
(catalyst; photochem. synthesis of Tempo-capped initiators for living free-radical polymerization)

L41 ANSWER 46 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:734286 HCAPLUS Full-text
DOCUMENT NUMBER: 123:144710
ORIGINAL REFERENCE NO.: 123:25813a,25816a
TITLE: Architectural control in "living" free radical polymerizations: preparation of star and graft polymers
AUTHOR(S): Hawker, Craig J.
CORPORATE SOURCE: Almaden Res. Cent., IBM Res. Cent., San Jose, CA, 95120-6099, USA
SOURCE: Angewandte Chemie, International Edition in English (1995), 34(13/14), 1456-9

CODEN: ACIEAY; ISSN: 0570-0833
PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 Aug 1995
AB Living free radical polymns. based on TEMPO [2,2,6,6-tetramethylpiperidinyloxy] derivs. alloy for accurate control of macromol. architecture. Star and graft copolymers can be prepared from the appropriate multi-functional initiators with no crosslinking or termination by combination, even under melt conditions. The mol. weight of the arms, or grafts, can be controlled by varying the equivalent of monomer added while maintaining very low polydispersity. The 2,2,6,6-tetramethylpiperidinyloxy-benzoate precursor underwent hydrolysis of the benzyl ester group to give the alc. Reaction of the alc. with 1,3,5-benzenetricarbonyl chloride in the presence of 4-dimethylaminopyridine produced the tri-functional initiator. Bulk polymerization of deuterated styrene with the tri-functional initiator produced the polystyrene in 84% yield. The polystyrene underwent hydrolysis with KOH and the hydrolyzed product has a mol. weight of 7600, which agrees closely with the theor. value for one arm of the star polymer [mol. weight 7000]. An analogous polymerization scheme was also developed to prepare graft systems.
IT 81913-53-3
(architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)
RN 81913-53-3 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



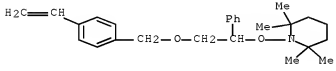
IT 161776-41-6P
(architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)
RN 161776-41-6 HCAPLUS
CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



IT 166983-64-8P
(functional copolymer and macroinitiator for preparation of branched polystyrene; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)
RN 166983-64-8 HCAPLUS
CN Piperidine, 1-[2-[(4-ethenylphenyl)methoxy]-1-phenylethoxy]-2,2,6,6-tetramethyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

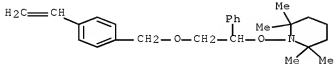
CRN 166983-63-7
CMF C26 H35 N O2



CM 2

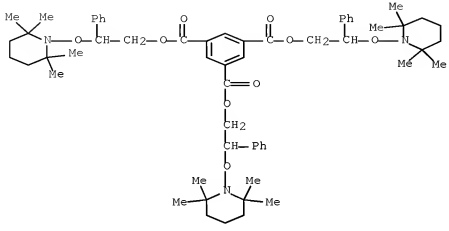
CRN 100-42-5
CMF C8 H8

IT 166983-63-7P
(functional graft monomer; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)
RN 166983-63-7 HCAPLUS
CN Piperidine, 1-[2-[(4-ethenylphenyl)methoxy]-1-phenylethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



IT 166983-62-6P
(tri-functional initiator; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)
RN 166983-62-6 HCAPLUS

CN 1,3,5-Benzenetricarboxylic acid, tris[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36

IT 1310-58-3, Potassium hydroxide, reactions 1592-20-7, p-Chloro-methylstyrene 4422-95-1, 1,3,5-Benzenetricarbonyl chloride 21913-53-3
(architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

IT 161776-41-6P
(architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

IT 166983-64-8P
(functional copolymer and macroinitiator for preparation of branched polystyrene; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

IT 166983-63-7P
(functional graft monomer; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

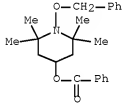
IT 166983-62-6P
(tri-functional initiator; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

L41 ANSWER 47 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:657520 HCAPLUS Full-text
DOCUMENT NUMBER: 115:257520
ORIGINAL REFERENCE NO.: 115:43797a,43800a
TITLE: Polymers stabilized with N-substituted hindered amines
INVENTOR(S): Cortolano, Frank P.; Seltzer, Raymond; Patel, Ambelal R.
PATENT ASSIGNEE(S): Ciba-Geigy Corp., USA
SOURCE: U.S., 19 pp. Cont.-in-part of U.S. Ser. No.

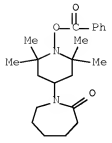
259,955, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5004770	A	19910402	US 1989-416621 <--	19891003
PRIORITY APPLN. INFO.:			US 1988-259955 B2 <--	19881019

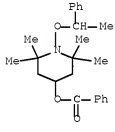
OTHER SOURCE(S): MARPAT 115:257520
ED Entered STN: 14 Dec 1991
AB Compds. bearing 2,2,6,6-tetraalkylpiperidine or -piperazine groups with the hindered N atom being substituted with OH or OR (R = organic) are useful as stabilizers for polymers other than polyolefins. A PVC plate containing 1% bis(1-methoxy-2,2,6,6-tetramethylpiperidin-4-yl) isophthalate (I), had ΔE value 2.8 (ASTM D-1925-63T) after exposuring for 3014 h in a weatherometer, vs. 6.7 without I.
IT 73931-11-0, 4-Benzoyloxy-1-benzyloxy-2,2,6,6-tetrmethylpiperidine 94271-82-6 117174-68-2 122586-57-6 122586-63-4 122586-67-8 122586-68-9 122586-75-8 122809-49-3 122809-50-1 122809-59-0 122826-60-2 129750-00-1 137452-89-2 137452-93-8 137452-96-1 137472-56-1
(stabilizers, for polymers other than polyolefins)
RN 73931-11-0 HCAPLUS
CN 4-Piperidinol, 2,2,6,6-tetramethyl-1-(phenylmethoxy)-, benzoate (ester) (9CI) (CA INDEX NAME)



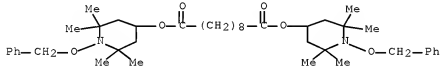
RN 94271-82-6 HCAPLUS
CN 2H-Azepin-2-one, 1-[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]hexahydro- (CA INDEX NAME)



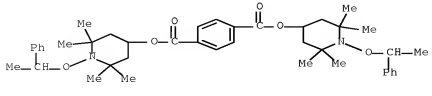
RN 117174-68-2 HCAPLUS
CN 4-Piperidinol, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)-, benzoate (ester) (9CI) (CA INDEX NAME)



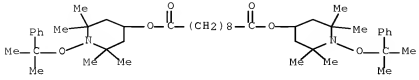
RN 122586-57-6 HCAPLUS
CN Decanedioic acid, bis[2,2,6,6-tetramethyl-1-(phenylmethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



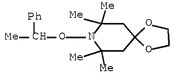
RN 122586-63-4 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, bis[2,2,6,6-tetramethyl-1-(1-phenylethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



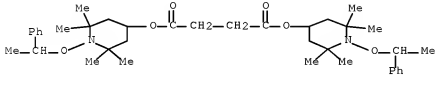
RN 122586-67-8 HCAPLUS
CN Decanedioic acid, bis[2,2,6,6-tetramethyl-1-(1-methyl-1-phenylethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



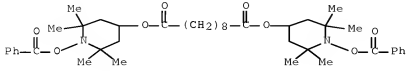
RN 122586-68-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 122586-75-8 HCAPLUS
CN Butanedioic acid, bis[2,2,6,6-tetramethyl-1-(1-phenylethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)

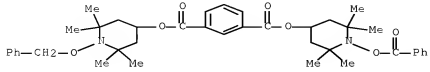


RN 122809-49-8 HCAPLUS
CN Decanedioic acid, bis[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl] ester (9CI) (CA INDEX NAME)

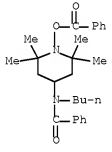


RN 122809-50-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl 2,2,6,6-tetramethyl-1-(phenylmethoxy)-4-piperidinyl ester (9CI) (CA INDEX NAME)



RN 122809-59-0 HCAPLUS
CN Benzamide, N-[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]-N-butyl- (CA INDEX NAME)



RN 122826-60-2 HCAPLUS
CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxybenzoyl]oxy]-2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)

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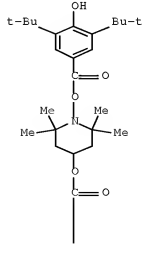
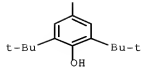
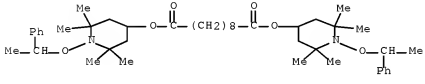


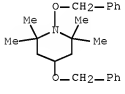
PAGE 2-A



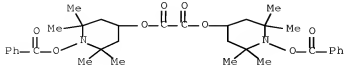
RN 129750-00-1 HCAPLUS
CN Decanedioic acid, 1,10-bis[2,2,6,6-tetramethyl-1-(1-phenylethoxy)-4-piperidinyl] ester (CA INDEX NAME)



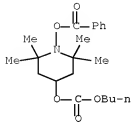
RN 137452-89-2 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1,4-bis(phenylmethoxy)- (CA INDEX NAME)



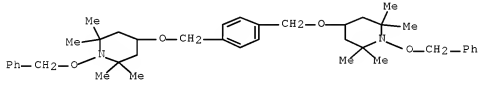
RN 137452-93-8 HCAPLUS
CN Ethanedioic acid, bis[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl] ester (9CI) (CA INDEX NAME)



RN 137452-96-1 HCAPLUS
CN Carbonic acid, 1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl butyl ester (CA INDEX NAME)



RN 137472-56-1 HCAPLUS
CN Piperidine, 4,4'-[1,4-phenylenebis(methyleneoxy)]bis[2,2,6,6-tetramethyl-1-(phenylmethoxy)- (9CI) (CA INDEX NAME)



IC ICM C08K005-3435
INCL 524099000
CC 37-6 (Plastics Manufacture and Processing)
IT 73931-11-0, 4-Benzoyloxy-1-benzyloxy-2,2,6,6-tetrmethylpiperidine 88699-62-1, 4-Benzoyloxy-1-methoxy-2,2,6,6,-tetramethylpiperidine 94271-82-6 99365-17-0 117174-66-0 117174-68-2 122586-50-9 122586-51-0 122586-52-1 122586-54-3 122586-55-4 122586-57-6 122586-62-3 122586-63-4 122586-65-6 122586-67-8 122586-68-9 122586-75-8 122586-76-9 122586-86-1 122586-90-7 122586-94-1 122586-95-2 122586-99-6 122587-03-5, Bis(1-cyclooctyloxy-2,2,6,6-tetramethylpiperidin-4-yl) sebacate 122587-05-7 122587-07-9 122587-08-0 122587-09-1 122587-11-5 122587-16-0 122616-76-6 122616-77-7 122616-78-8 122779-59-3 122809-40-9 122809-41-0 122809-42-1 122809-43-2 122809-45-4 122809-46-5 122809-47-6 122809-48-7 122809-49-8 122809-50-1 122809-51-2 122809-52-3 122809-53-4 122809-54-5 122809-55-6 122809-59-0 122809-61-4 122809-63-6 122809-65-8 122809-67-0 122809-68-1 122826-59-9 122826-60-2 129750-00-1 129750-01-2 129750-02-3 130048-66-7 130048-67-8, 1,4-Dimethoxy-2,2,6,6-tetramethylpiperidine 130048-68-9 130048-69-0 137452-89-2 137452-90-5 137452-91-6 137452-92-7 137452-93-8 137452-94-9 137452-95-0 137452-96-1 137452-97-2 137452-98-3 137452-99-4 137453-00-0 137453-01-1 137453-02-2 137453-03-3 137472-56-1
(stabilizers, for polymers other than polyolefins)

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=> d his nofile

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                 SEL RN

     FILE 'REGISTRY' ENTERED AT 08:31:48 ON 20 MAY 2008
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                 109-54-6/BI OR 109-55-7/BI OR 121-44-8/BI OR 1212-85-9/BI
                 OR 1213-47-6/BI OR 1214-06-0/BI OR 12244-16-5/BI OR
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                 264279-93-8/BI OR 319458-08-7/BI OR 478697-26-6/BI OR
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                 627-18-9/BI OR 639809-48-6/BI OR 639809-49-7/BI OR
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                 74-88-4/BI OR 74-96-4/BI OR 9003-49-0/BI OR 9003-53-6/BI
                 OR 998-40-3/BI)
                 ACT WYR030/Q
                 ---------
L3               STR
                 ---------
                 DIS SIA
L4               STR L3
L5             0 SEA SSS SAM L4
L6               SCR 1620 OR 1621
L7            28 SEA SSS SAM L4 AND L6
                 D QUE STAT
L8            50 SEA SSS SAM L3 AND L6
L9               STR L4
L10           32 SEA SSS SAM L9 AND L6
L11         1865 SEA SSS FUL L9 AND L6
L12           22 SEA ABB=ON  PLU=ON  L11 AND L2
                 SAV L11 WYR030A/A

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L13            6 SEA ABB=ON  PLU=ON  L12
L14          785 SEA ABB=ON  PLU=ON  L11
L15            1 SEA ABB=ON  PLU=ON  L14 AND L1
                 E CLAYS/CT
L16       110963 SEA ABB=ON  PLU=ON  CLAYS+PFT,NT/CT
L17            0 SEA ABB=ON  PLU=ON  L14 AND L16
L18            2 SEA ABB=ON  PLU=ON  L14 AND CLAY?
L19          402 SEA ABB=ON  PLU=ON  L14 AND POLYMER?/SC,SX
L20          355 SEA ABB=ON  PLU=ON  L14(L)POLYMER?
L21            1 SEA ABB=ON  PLU=ON  L20 AND L1
L22          343 SEA ABB=ON  PLU=ON  L20 AND (PLASTIC? OR POLYMER?)/SC,SX
L23          272 SEA ABB=ON  PLU=ON  L22 AND (1840-2004)/PRY,AY,PY
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     FILE 'REGISTRY' ENTERED AT 09:11:10 ON 20 MAY 2008
L24             STR L9
L25               9 SEA SUB=L11 SSS SAM L24
L26             162 SEA SUB=L11 SSS FUL L24
                  SAV L26 WYR030B/A

     FILE 'HCAPLUS' ENTERED AT 09:20:44 ON 20 MAY 2008
L27              82 SEA ABB=ON  PLU=ON  L26
L28              38 SEA ABB=ON  PLU=ON  L27 AND L23
L29             234 SEA ABB=ON  PLU=ON  L23 NOT L27

     FILE 'STNGUIDE' ENTERED AT 09:22:21 ON 20 MAY 2008
L30             QUE ABB=ON  PLU=ON  CLAY? OR BENTONIT? OR CERAMIC? OR
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                 OR MONTMORILLONITE SMECTIT? OR ILLIT? OR CHLORIT?

     FILE 'HCAPLUS' ENTERED AT 09:34:50 ON 20 MAY 2008
L31              0 SEA ABB=ON  PLU=ON  L29 AND L30
L32              4 SEA ABB=ON  PLU=ON  L14 AND L30
L33              4 SEA ABB=ON  PLU=ON  L18 OR (L31 OR L32)
L34              2 SEA ABB=ON  PLU=ON  L29 AND POLYMER?(3A)(MATRIX? OR
                  MATRIC?)
L35              4 SEA ABB=ON  PLU=ON  L14 AND POLYMER?(3A)(MATRIX? OR
                  MATRIC?)
L36              7 SEA ABB=ON  PLU=ON  (L33 OR L34 OR L35)
L37             12 SEA ABB=ON  PLU=ON  L13 OR L36
L38             35 SEA ABB=ON  PLU=ON  L28 NOT L37
L39              0 SEA ABB=ON  PLU=ON  L38 AND POLYMER?(3A)(MATRIX? OR
                  MATRIC?)
L40             35 SEA ABB=ON  PLU=ON  L38 OR L39
                  SAV L29 WYR030C/A
L41             47 SEA ABB=ON  PLU=ON  L37 OR
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